

Utility Facts



2011

Vermont Department of Public Service
112 State Street
Montpelier, VT 05620-2601
(802)-828-2811
Vermont TTY/TDD: 1-800-734-8390
Email: vtgps@state.vt.us
Internet: <http://www.publicservice.vermont.gov>

Updated March 2011

Table of Contents

Chapter & Section	Page
Introduction	I - 2
I. Electricity	
1 Retail Sales and Revenue of Vermont Electric Utilities	E - 1
2 Seasonal Peaks New England and Vermont	E - 5
3 Vermont Electric Energy Supply, Source & Load Factor	E - 6
4 Electric DSM & Efficiency Programs	E - 10
5 Net Metered Systems	E - 12
6 Electric Rates	E - 13
7 Electric Utility Reliability, Complaints & Franchise Map	E - 17
II. Natural gas	
9 Natural Gas Supply, Demand & Price	NG - 1
10 Natural Gas DSM, Consumer Complaints	NG - 3
11 Natural Gas Service Territory	NG - 5
III. Energy Summary	
12 Energy Supply	ES - 1
13 Energy Emissions	ES - 2
14 Energy Supply – Cost of Fuels	ES - 3
IV. Telecommunications	
15 Telecom High Speed Infrastructure	T - 1
16 Telecom- Local & Wireless	T - 6
17 Telecom Pricing	T - 8
V. Water	
18 Water Connections	W - 1
Glossary	G -1
Data Source(s)	D - 1

FORWARD & INTRODUCTION

The Department of Public Service serves all citizens of Vermont through public advocacy, planning, programs, and other actions that meet the public's need for least cost, environmentally sound, efficient, reliable, secure, sustainable, and safe energy, telecommunications, and regulated utility systems in the state for the short and long term.

The Department:

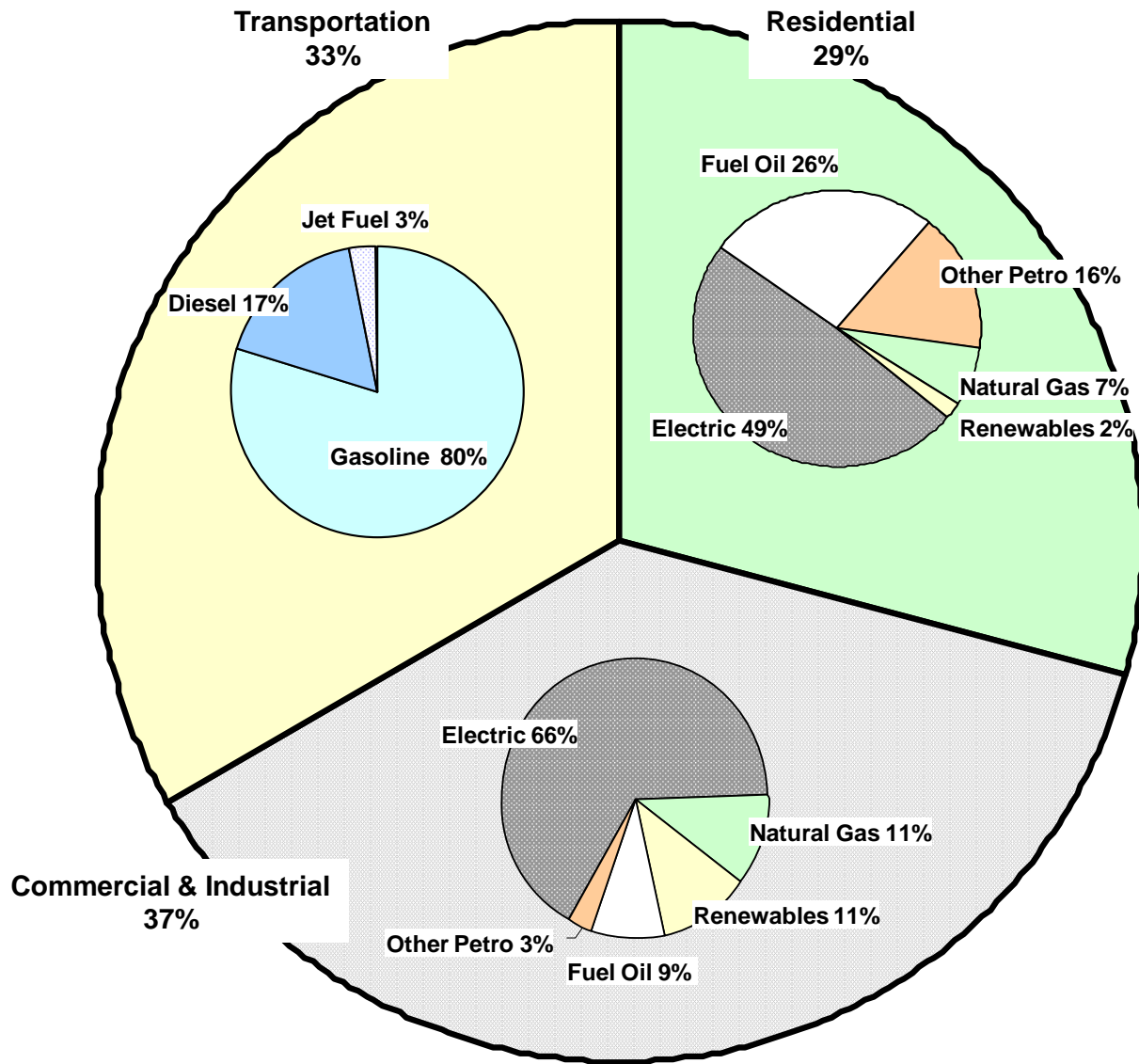
- Promotes the interest of the general public in the provision of regulated public services—electricity, natural gas, telephone, cable television, and to a limited degree water and wastewater;
- Ensure the state's telecommunications infrastructure can support diversified services that address the current and future needs Vermont's state's residents and businesses; and
- Protects public health and safety and ensures safety regulations established by federal and state government for nuclear facilities, natural gas, and certain types of propane installations are met.

The Department also fulfills its advocacy responsibilities by providing the public with up-to-date information regarding Vermont's utilities. *Utility Facts* contributes to our public information mission by providing utility data as it becomes available in an easy to access format.

This report is divided into five sections, (Electricity, Natural Gas/Fossil Fuels, Energy Summary, Telecommunications and Water) each of which contains tables, charts and references.

Vermont Energy End-Use By Source, 2008

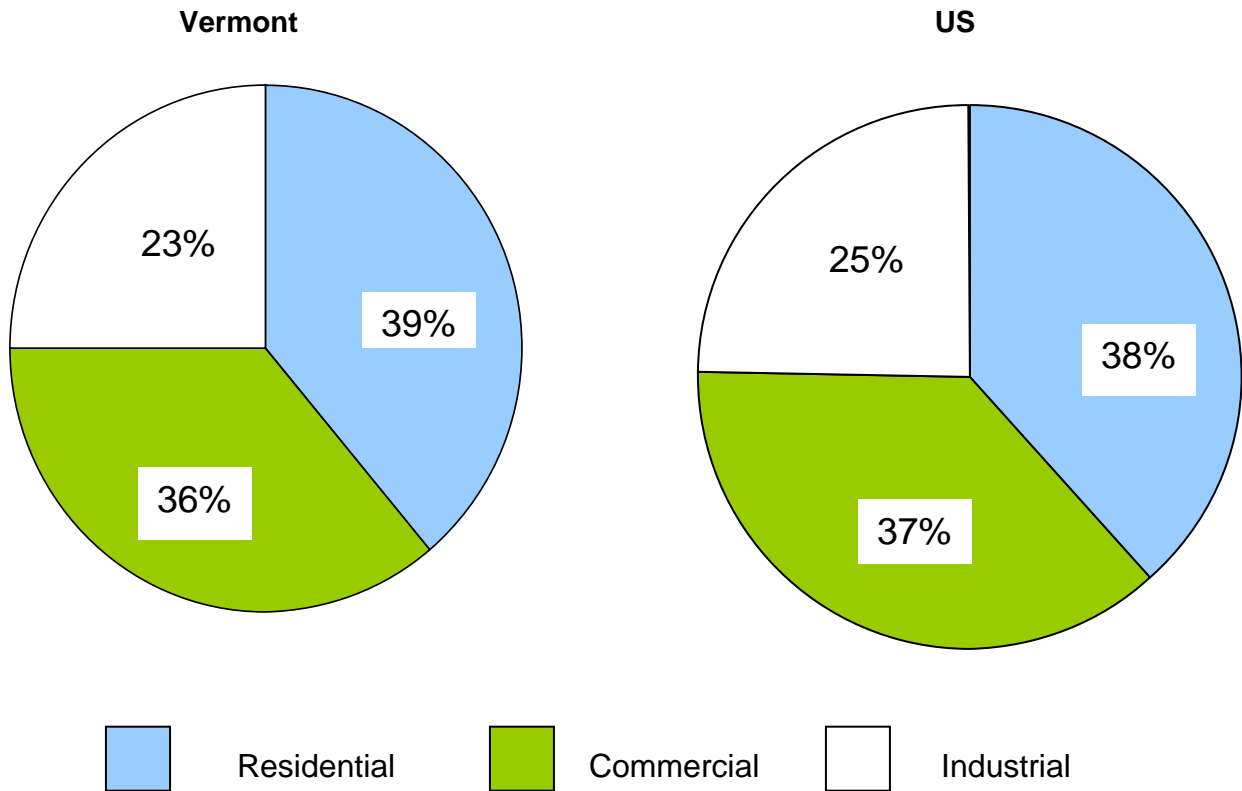
(Percent of Total BTU's Consumed)



Section I

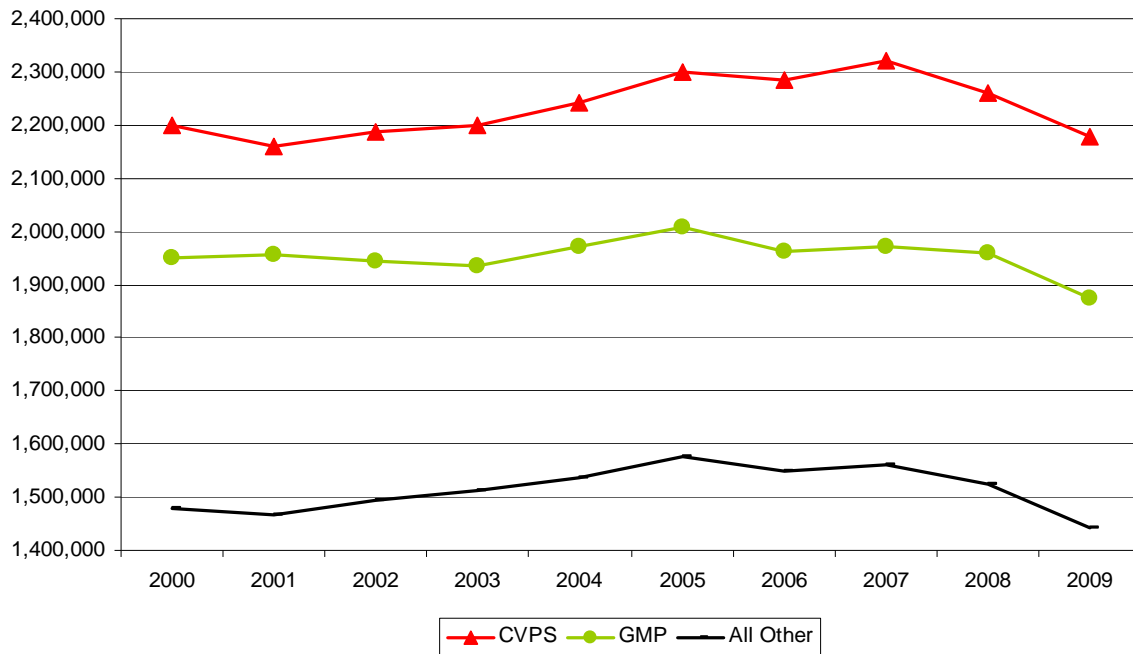
Electricity

1. Retail Sales and Revenue of Vermont Electric Utilities

Figure 1.1 Percentage of Retail Electricity Sales By End-Use Sector, 2009**Table 1.1 Retail Sales of Electricity to Ultimate Customers By End-Use Sector (Million KWh)**

Vermont	2004	2005	2006	2007	2008	2009
Residential	2,109	2,189	2,136	2,170	2,133	2,121
Commercial	1,978	2,051	2,020	2,059	2,043	1,969
Industrial	1,577	1,644	1,628	1,635	1,565	1,369
Total	5,664	5,883	5,784	5,864	5,741	5,494
US	2004	2005	2006	2007	2008	2009
Residential	1,293,587	1,359,227	1,354,232	1,392,241	1,379,981	1,362,869
Commercial	1,229,045	1,275,079	1,300,851	1,336,315	1,335,981	1,322,989
Industrial	1,018,522	1,019,156	1,001,929	1,027,832	1,009,300	881,903
Total	3,541,154	3,653,462	3,657,012	3,756,388	3,725,262	3,567,761

Source: EIA

Figure 1.2 Vermont Electric Utility Retail Sales (MWh), 2000-2009**Table 1.2 Vermont Utility Retail Sales and Rate Revenue, 2009**

	Sales* (MWh)	Utility Rate Revenue (\$m)	Residential MWh	Commercial MWh	Industrial MWh
BARTON	14,943	\$2.34	10,656	3,166	0
BURLINGTON	346,632	\$46.48	85,582	209,322	47,537
CVPS	2,177,762	\$275.84	981,838	825,010	364,516
ENOSBURG FALLS	23,434	\$3.46	12,158	1,704	8,368
GMP	1,872,798	\$222.69	570,263	688,061	610,092
HARDWICK	31,460	\$5.56	23,006	4,386	3,840
HYDE PARK	11,453	\$1.82	8,345	2,563	0
JACKSONVILLE	5,003	\$0.85	3,496	576	870
JOHNSON	14,318	\$2.11	5,108	1,178	7,576
LUDLOW	46,836	\$6.64	16,017	19,913	10,487
LYNDONVILLE	67,849	\$9.90	32,558	10,199	24,573
MORRISVILLE	43,827	\$6.35	20,179	23,475	0
NORTHFIELD	28,349	\$3.72	10,322	2,589	13,084
ORLEANS	11,022	\$1.46	4,189	1,628	4,704
READSBORO	2,243	\$0.32	1,618	256	285
STOWE	70,795	\$10.16	20,999	37,210	9,519
SWANTON	55,233	\$5.71	25,978	27,678	0
VEC.	424,559	\$66.10	220,295	101,911	94,346
VT MARBLE	177,492	\$14.73	6,545	4,774	166,075
WEC	68,408	\$10.78	61,797	3,523	3,032
Total**	5,494,413	\$697.01	2,120,949	1,969,121	1,368,903

*Retail sales include Public Street & Highway, Other, & Public Authorities; excludes re-sales

Source: Vermont DPS

Figure 1.2a CVPS Annual Percent Change in MWh Retail Sales

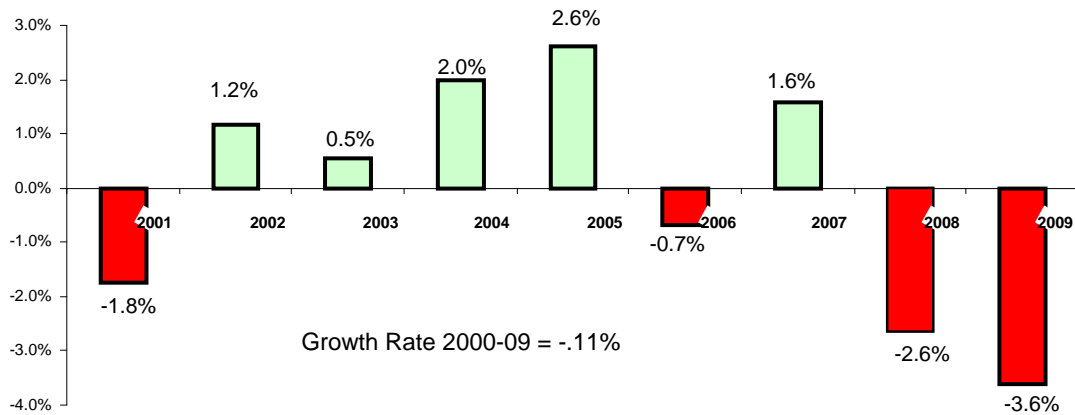


Figure 1.2b GMP Annual Percent Change MWh Retail Sales

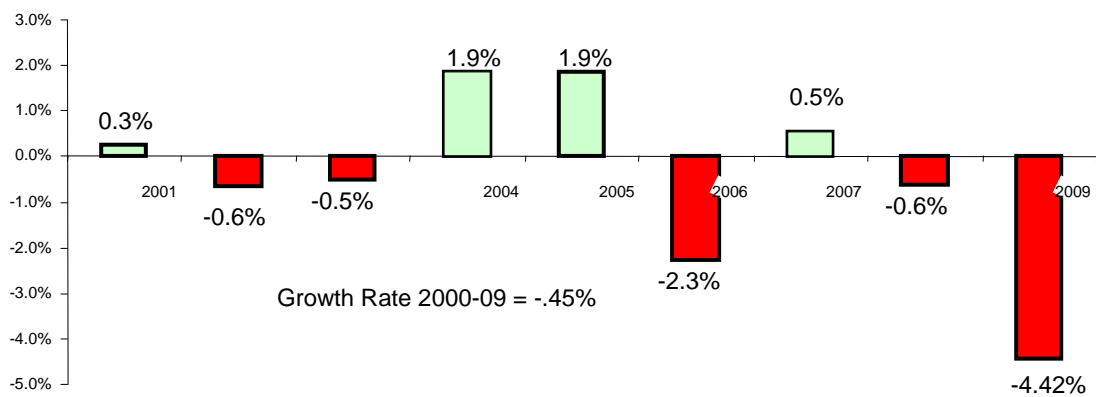


Figure 1.2c All Other VT Utilities Annual Percent Change MWh Retail Sales

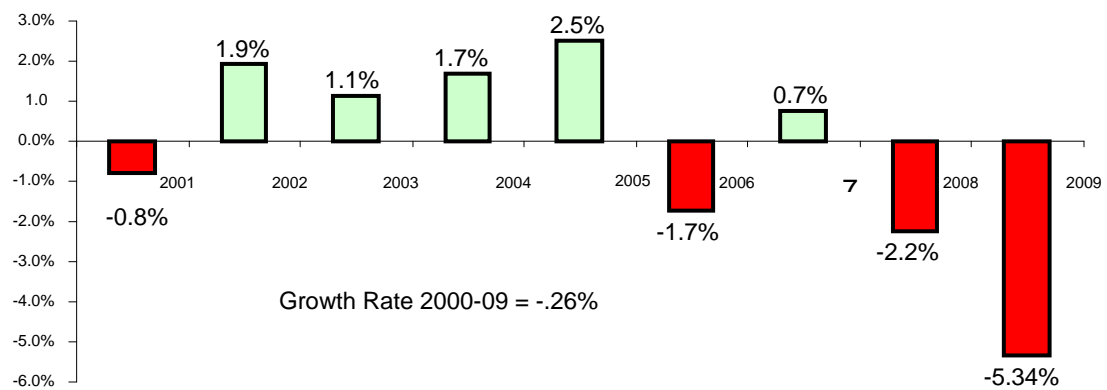
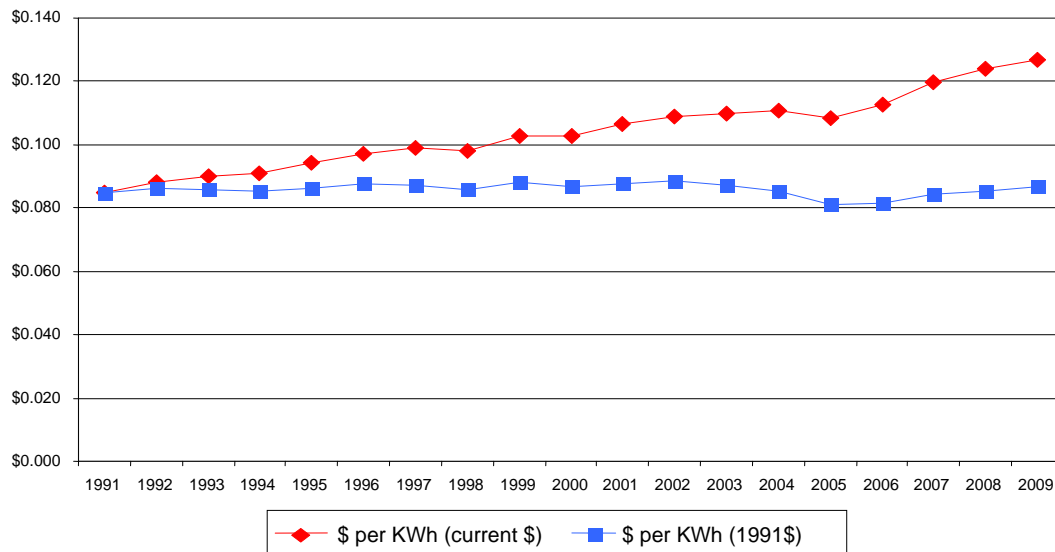
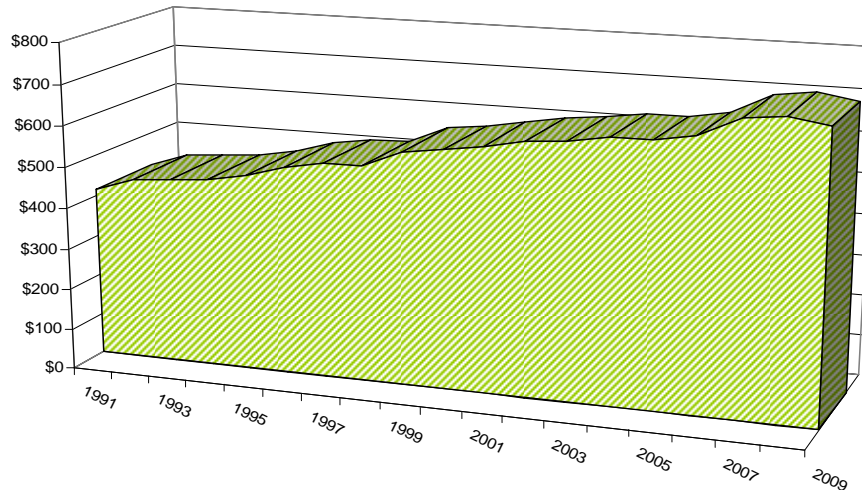
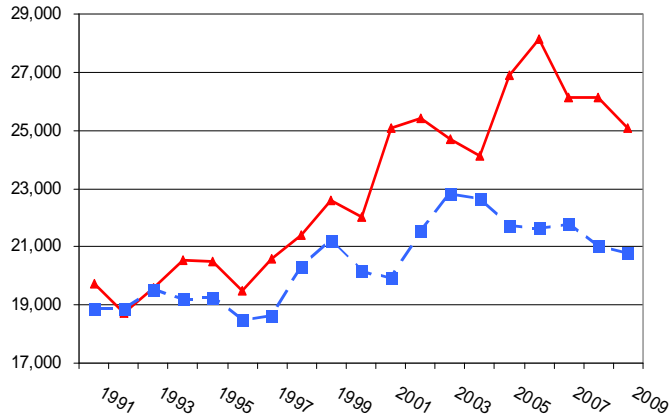
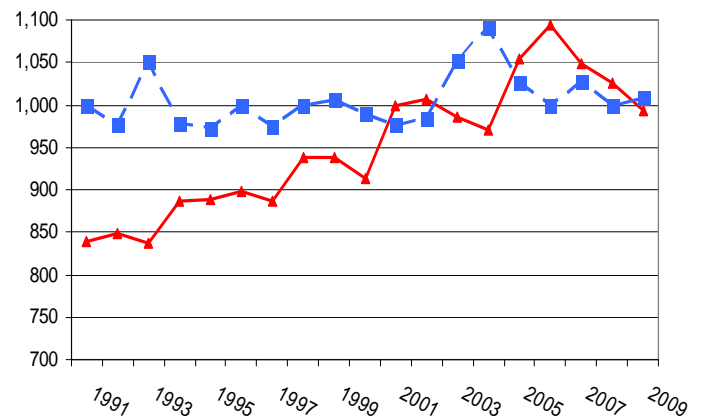


Figure 1.2d Retail Price Electricity (\$ per KWh), Vermont**Figure 1.2e Total Retail Rate Revenue (\$, in millions), All Electric Utilities, Vermont****Table 1.2a Total Retail Rate Revenue (\$ in Millions), All Electric Utilities, Vermont**

1991	\$416.6	2000	\$579.3
1992	\$446.9	2001	\$594.0
1993	\$454.3	2002	\$612.6
1994	\$461.3	2003	\$620.7
1995	\$479.7	2004	\$636.2
1996	\$507.7	2005	\$637.0
1997	\$524.6	2006	\$653.5
1998	\$526.4	2007	\$702.0
1999	\$566.6	2008	\$712.5
		2009	\$697.0

Source: DPS

2. Seasonal Peaks New England and Vermont

Figure 1.3 New England Seasonal Peak, MW, 1991-09**Figure 1.4 Vermont Seasonal Peak, MW, 1991-09**

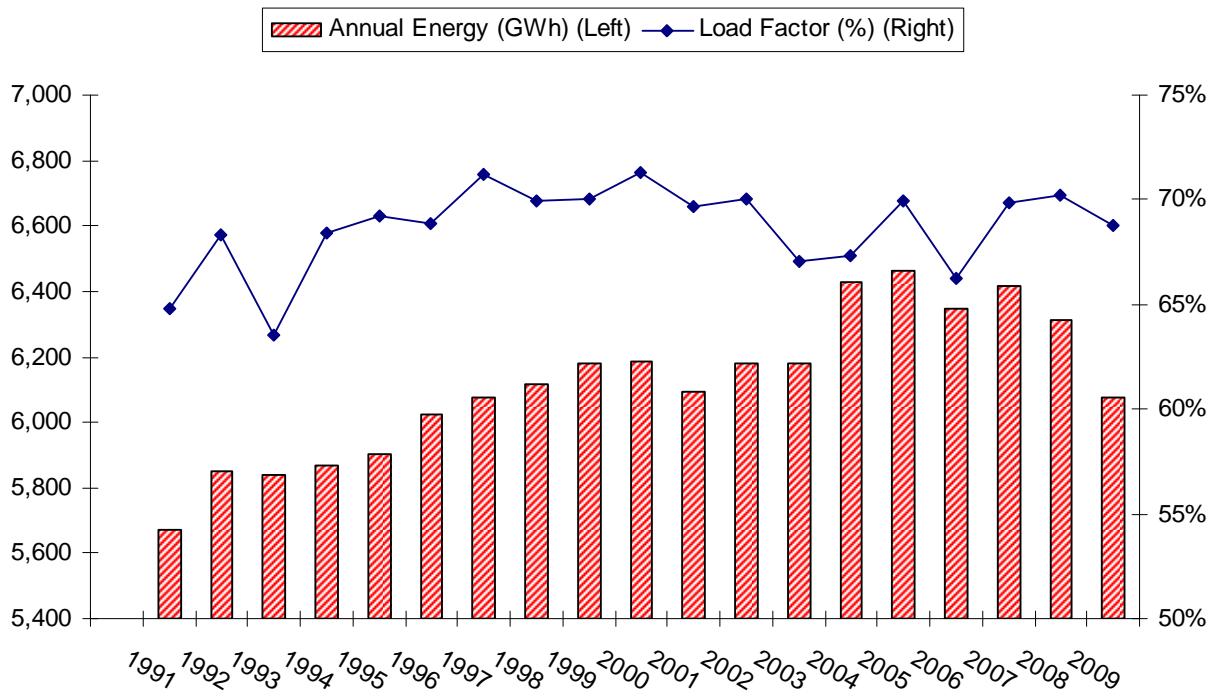
--- Winter — Summer

Table 1.3 Vermont Seasonal Peak (MW) 1991-2009

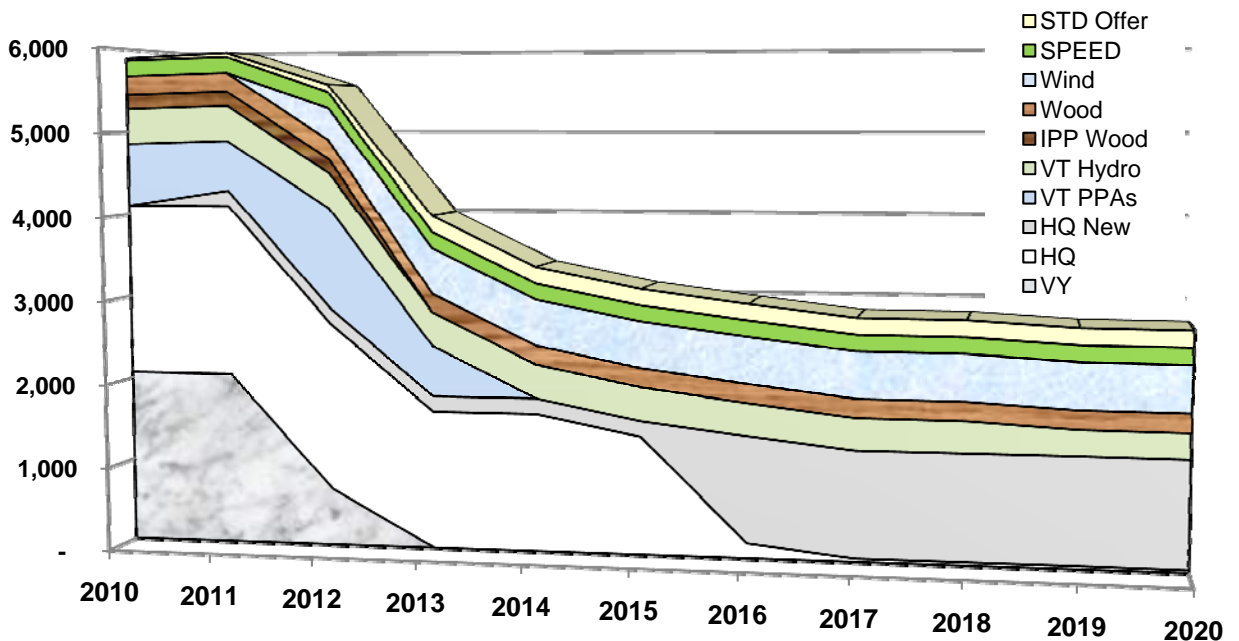
Year	Summer Peak	Winter Peak	Annual Energy	Load Factor
1991	840	999	5,672,000	64.8%
1992	848	977	5,849,000	68.3%
1993	838	1,050	5,841,000	63.5%
1994	886	979	5,867,000	68.4%
1995	888	973	5,903,000	69.3%
1996	898	999	6,025,000	68.8%
1997	886	974	6,076,000	71.2%
1998	939	999	6,118,000	69.9%
1999	939	1,007	6,182,000	70.1%
2000	914	990	6,186,000	71.3%
2001	999	976	6,094,000	69.6%
2002	1,007	984	6,181,000	70.1%
2003	985	1,052	6,178,000	67.0%
2004	971	1,090	6,431,000	67.4%
2005	1,055	1,026	6,461,000	69.9%
2006	1,094	1,000	6,346,000	66.2%
2007	1,049	1,027	6,416,000	69.8%
2008	1,026	999	6,313,000	70.2%
2009	993	1,008	6,073,000	68.8%

Source: ISO-NE

3 Vermont Electric Energy Supply, Source & Load Factor

Figure 1.5 Vermont Electric Utilities: Annual Load Factor and Annual Energy, 1991-2009

Source: ISO-NE

Figure 1.7 Committed Resources, in GWH (as of December 2010)*

*'HQ New' reflects the terms of a recent 26 year purchase power agreement (PPA) between Hydro Quebec and several Vermont electric utilities for up to 225 MW of energy starting in November 2012 extending through 2038.

Source: DPS

Figure 1.8 Vermont Own Load Electric Energy Supply, 2009

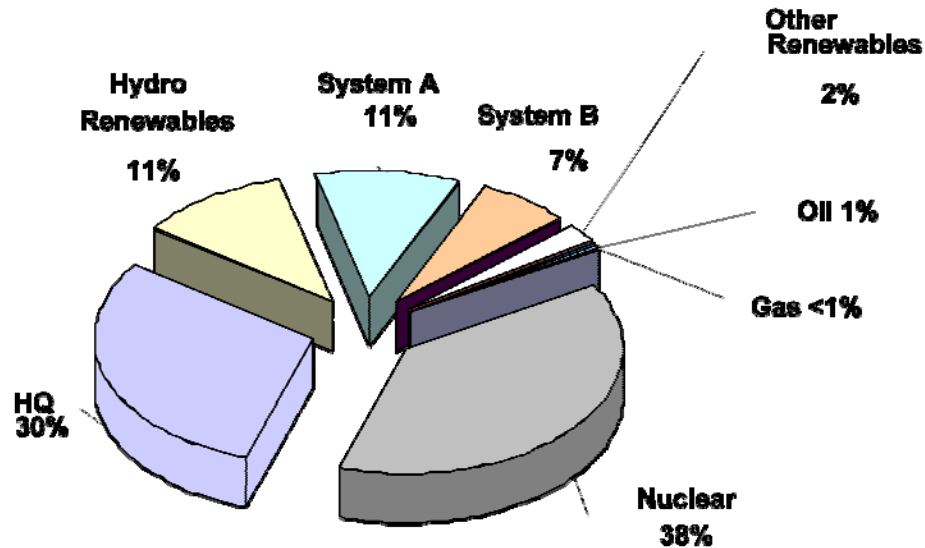
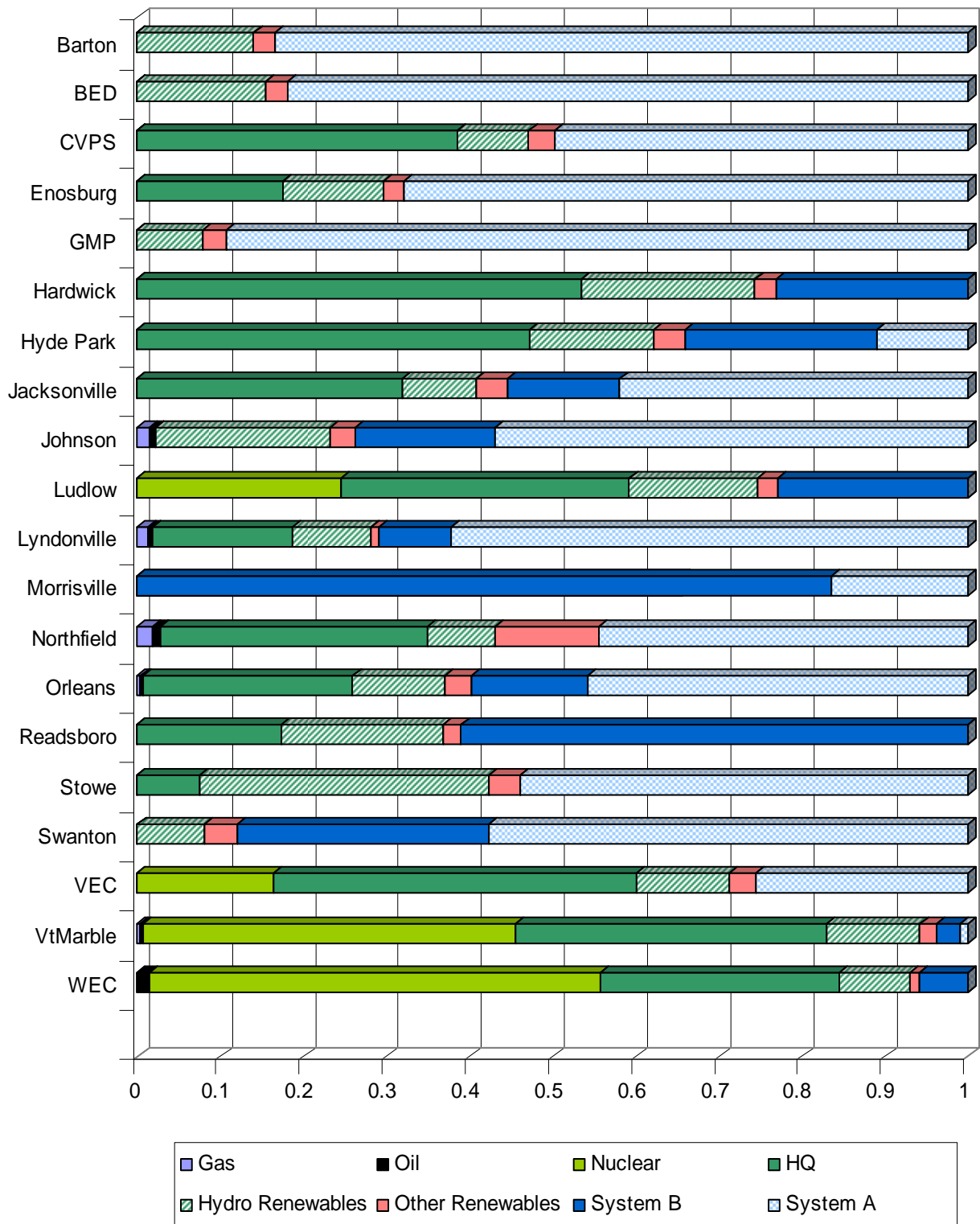


Table 1.5 Vermont Electric Utilities by Energy Source, 2009 (MWh)

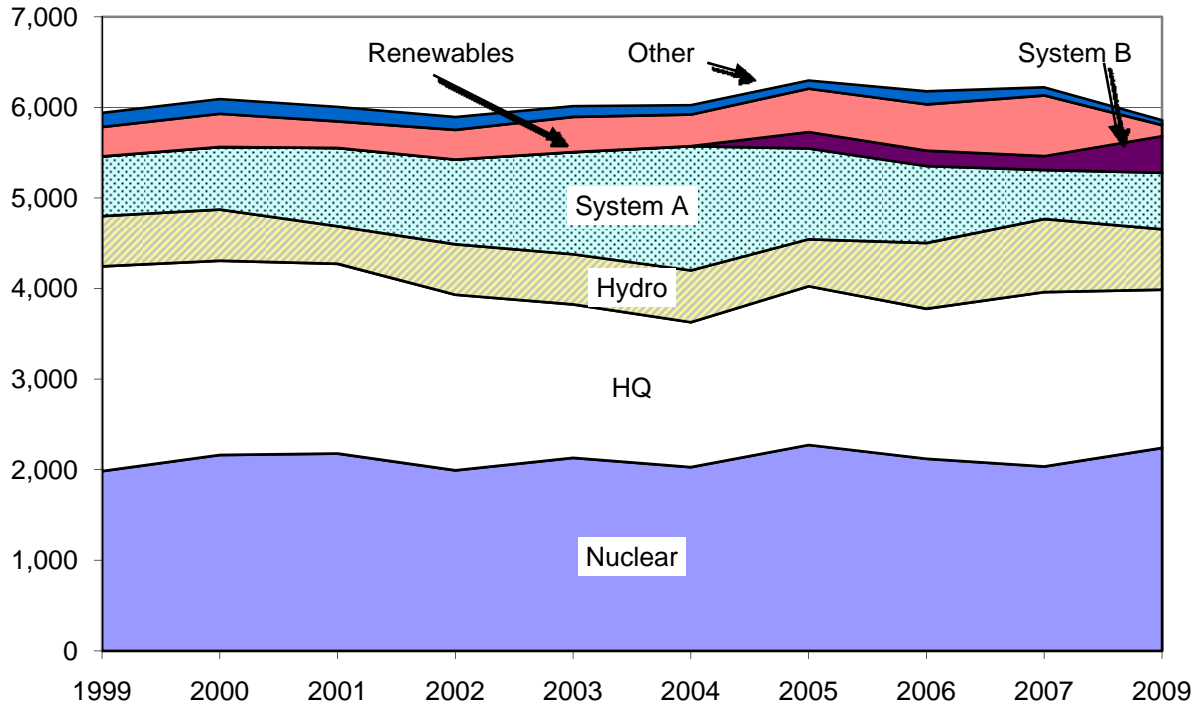
	Total =	Nuclear	HQ	Hydro Renewable	System A*	System B*	Other Renewable	Oil	Gas
CVPS	2,336,876	1,266,616	673,209	198,602	0	136,164	27,050	35,235	0
GMP	1,976,245	886,551	739,693	221,943	19,487	53,241	40,709	7,810	6,811
VEC	465,286	76,370	203,113	52,273	118,753	0	14,777	0	0
BED	360,300	0	0	29,217	208,013	108,772	14,098	0	200
VtMarble	178,443	0	13,414	62,063	96,381	0	6,702	-116	0
WEC	82,847	0	14,346	16,241	0	50,503	1,757	0	0
Lyndonville	78,505	0	19,853	8,640	35,896	11,035	2,548	190	343
Stowe	70,795	0	22,827	5,762	31,453	0	8,822	643	1,287
Swanton	58,450	0	0	38,037	9,898	10,536	-327	102	204
Ludlow	48,275	0	8,109	4,578	30,041	4,152	486	300	609
Morrisville	46,558	11,424	16,178	7,178	0	10,622	1,157	0	0
Hardwick	37,314	0	0	7,827	21,218	6,303	1,153	268	545
Northfield	30,570	0	9,774	2,725	12,804	4,118	1,149	0	0
Enosburg	22,943	0	10,831	3,418	2,510	5,304	876	4	0
Barton	17,386	0	9,302	3,628	0	4,011	441	4	0
Johnson	15,992	0	0	1,266	14,281	0	445	0	0
Hyde Park	12,996	0	2,287	1,568	8,820	0	320	0	0
Orleans	12,129	0	4,667	1,053	6,025	0	383	0	0
Jacksonville	5,832	0	0	902	4,778	0	152	0	0
Readsboro	2,625	0	0	369	2,188	0	67	0	0
Total	5,860,369	2,240,961	1,747,603	667,292	622,548	404,761	122,765	44,440	10,000

Note: System A are market purchases of energy by Vermont utilities not attributed to any specific source.
System B is energy produced by Vermont renewable facilities where the REC's (Renewable Energy Credits) have been sold to third parties who now own and claim those environmental attributes.

Figure 1.9 Vermont Electric Utilities by Energy Source, 2009



Source: DPS

Figure 1.10 Vermont Electric Energy Supply (GWhrs) By Resource, 1999-2009

Source: Vermont DPS

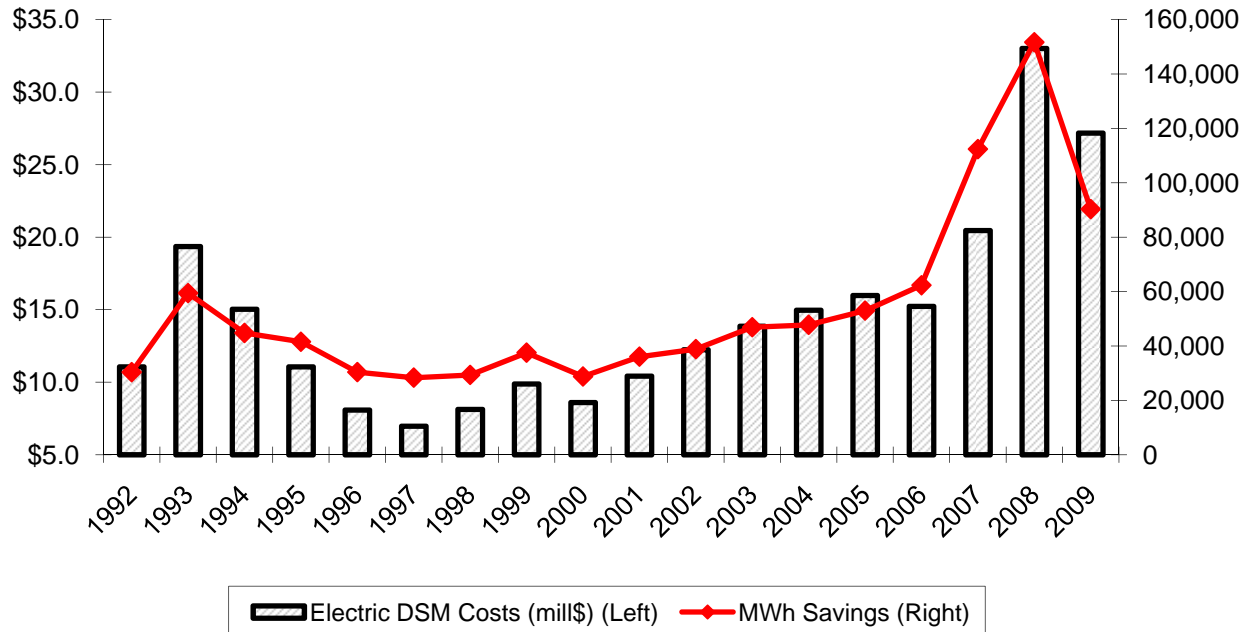
Table 1.6 Vermont Electric Energy Supply by Resource, Selected Years

	(in GWhrs)			(percent Distribution)		
	1999	2004	2009	1999	2004	2009
Nuclear	1,985	2,029	2,241	33%	34%	38%
Gas	81	25	10	1%	0%	0%
Oil	75	78	44	1%	1%	1%
HQ	2,261	1,600	1,748	38%	27%	30%
Hydro	554	572	667	9%	9%	11%
Renewable	325	349	123	5%	6%	2%
System A*	659	1,372	623	11%	23%	11%
System B*	NA	NA	405	-	-	7%
Total	5,940	6,026	5,860	100%	100%	100%

Source: Vermont DPS

* Note: System A are market purchases of energy by Vermont utilities; System B is energy produced by Vermont renewable facilities where the REC's (Renewable Energy Credits) have been sold to third parties who now own and claim those environmental attributes.

4 Electric DSM and Efficiency Programs

Figure 1.6 Electric Efficiency Programs: Costs & Savings*

*See footnote Table 1.4

Table 1.4 Electric Efficiency Programs - Cost and Savings*

	Utility DSM Costs (in \$000's)	Incremental DSM Savings* (in MWh)
2000	\$8,605	28,760
2001	\$10,423	36,045
2002	\$12,243	38,821
2003	\$13,866	46,874
2004	\$14,972	47,750
2005	\$15,986	52,982
2006	\$15,233	62,317
2007	\$20,459	112,396
2008	\$33,014	151,702
2009	\$27,180	90,324

Source: Vermont DPS, EVT, Burlington Electric

*Estimates are for 1st year annualized electric savings and do not reflect savings over the remaining lifetime of the DSM investment.

Table 1.4a Energy Efficiency Savings by End Use (MWh), 2009

	Total MWh*	Efficiency Vermont		Burlington Electric	
		<u>Business</u>	<u>Residential</u>	<u>Business</u>	<u>Residential</u>
Lighting	61,615	24,401	34,797	1,056	1,361
Industrial Process	6,715	4,366		2,349	
Motors	4,335	4,209	17	109	
Refrigeration	3,675	1,998	1,562	79	36
Air Conditioning	3,208	2,976	161	45	26
Other	2,572	1,848	543	131	49
Ventilation	1,064	862	200		2
Cook & Laundry	1,129	19	1,026		84
Space Heating	853	509	310		34
Hot Water	876	106	664		106
Sub-Total	86,044	41,294	39,280	3,770	1,700
+ Consumer Credit	4,280				
= Total	90,324				

* Estimates are 1st year annualized electric savings, but do not reflect savings over the remaining lifetime of the DSM investment.

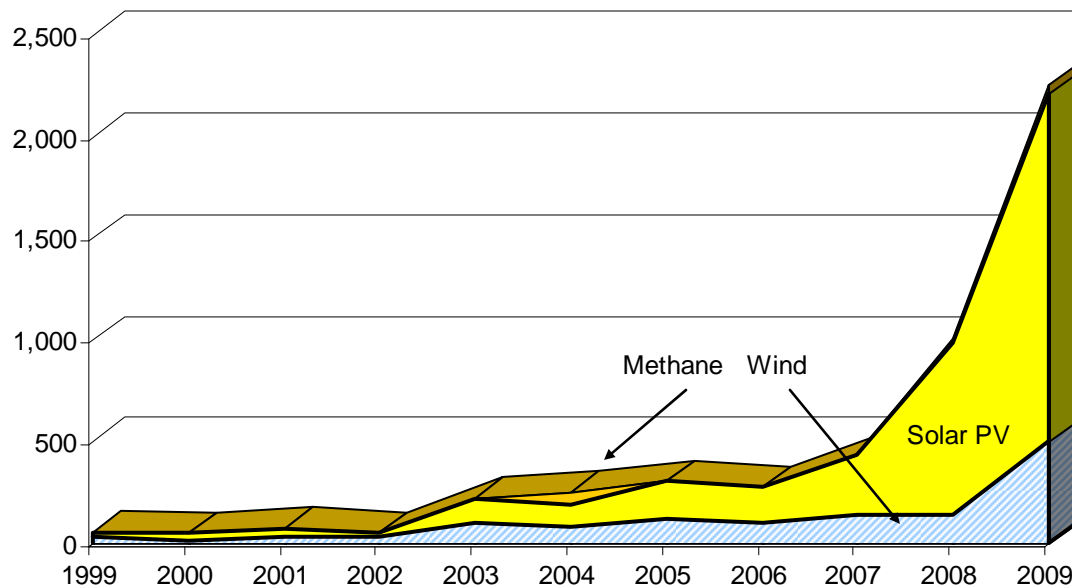
Source: Table includes efficiency services and initiatives by Burlington Electric Co. and Efficiency Vermont on behalf of all other Vermont electric utilities.

Table 4.1b DSM: Electric Efficiency Services & Initiatives By Utility, 2009*

	<u>No. Participants</u>	<u>MWh Saved</u>	<u>MWh/Participant</u>
Barton	188	89	0.47
BED	1,705	5,811	3.41
CVPS	15,316	37,297	2.44
Enosburg Falls	188	618	3.29
GMP	10,624	29,028	2.73
Hardwick	432	650	1.50
Hyde Park	147	332	2.26
Jacksonville	65	36	0.55
Johnson	139	295	2.12
Ludlow	138	412	2.99
Lyndonville	701	661	0.94
Morrisville	378	934	2.47
Northfield	199	687	3.45
Orleans	124	159	1.28
Readsboro	19	6	0.32
Stowe	242	1,186	4.90
Swanton	315	682	2.17
VEC	4,840	5,936	1.23
VT Marble	104	42	0.40
Washington Elec	1,927	1,183	0.61
Total	37,791	86,044	2.28

*Estimates are for 1st year annualized electric savings and do not reflect savings over the remaining lifetime of the DSM investment. Excludes Consumer Credit program.

5. Net Metered Systems*

Figure 1.11 Approved Net Metered Capacity, in KW

Source: DPS

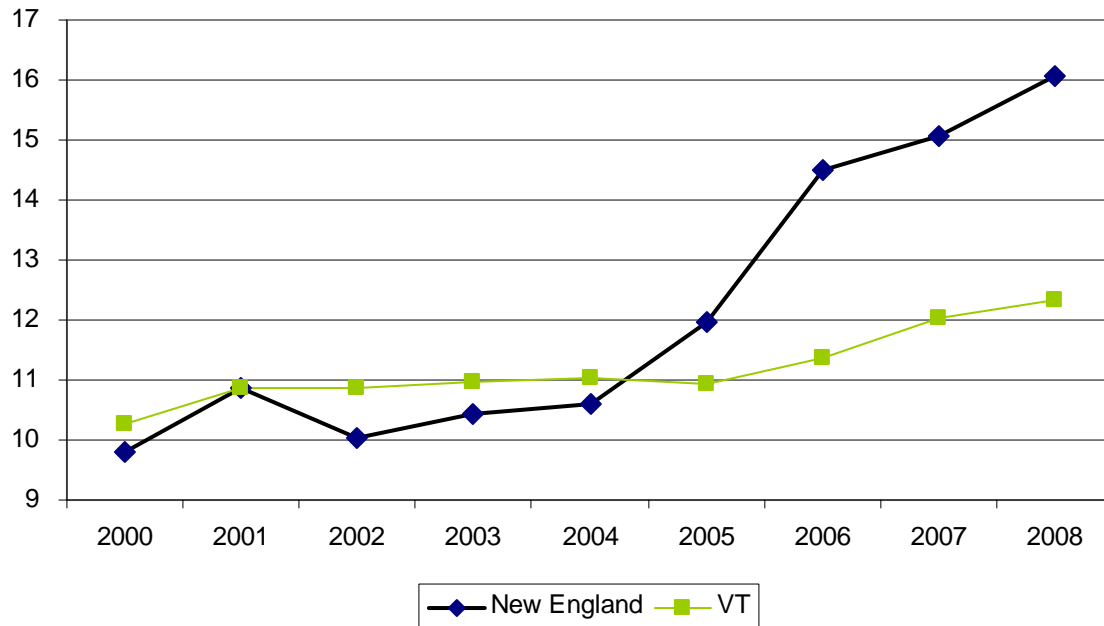
Table 1.7 Approved Net Metered Systems Through 2009

	Total	Wind	Solar PV	Methane	Percent		
					Wind	Solar PV	Methane
No. Systems	867	145	718	4	16.7%	82.8%	0.5%
Total KW Approved	5,515	1,391	4,001	123	25.2%	72.5%	2.2%
Average Capacity (kw)	6.4	9.6	5.6	30.8			

* **Net metered Systems:** Permit a customer to own and operate a small generator on the customer side of the meter. Also known as Customer-side generation, net metered systems serve to offset the amount of generation for which the customer is billed. An added benefit allows the customer to sell any excess power at the end of the month back to the utility. These systems are generally small, intermittent generators such as those using solar and wind energy. The capacity for each net metered system is the nameplate capacity as reported by the applicant.

Source: Vermont DPS

6. Electric Rates

Figure 1.12 Average Electricity Rates, New England, Vermont, (Cents/kWh)

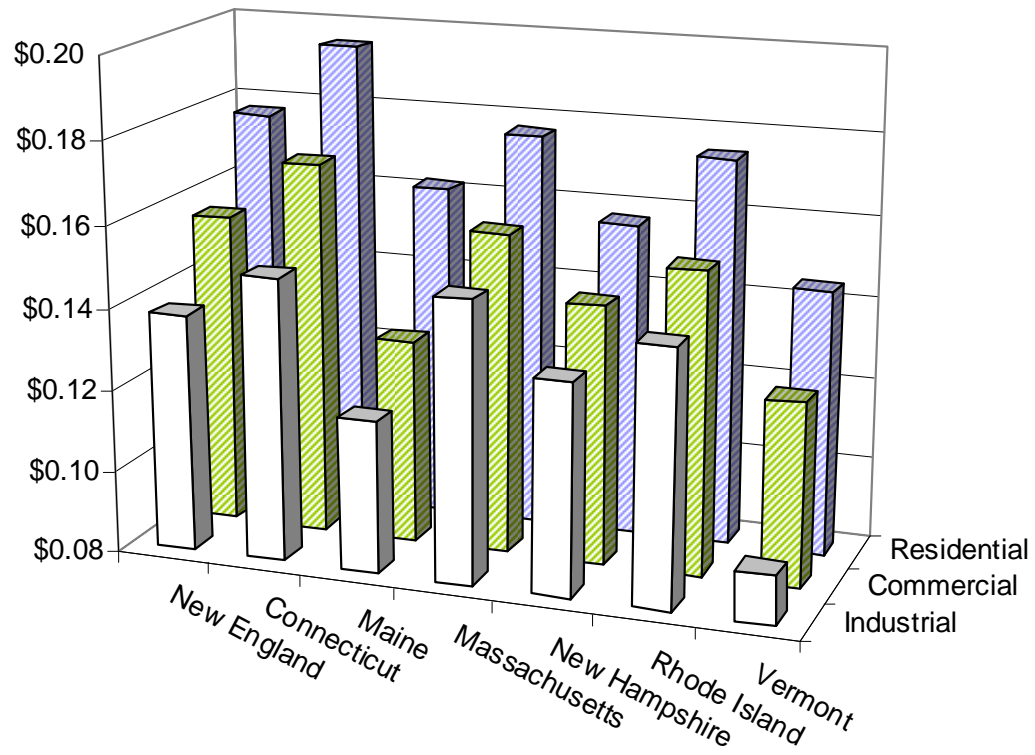
Source: EIA

Table 1.8 Average Retail Price of Electricity to Ultimate Customers by End-Use Sector, by State
(Cents/kWh)

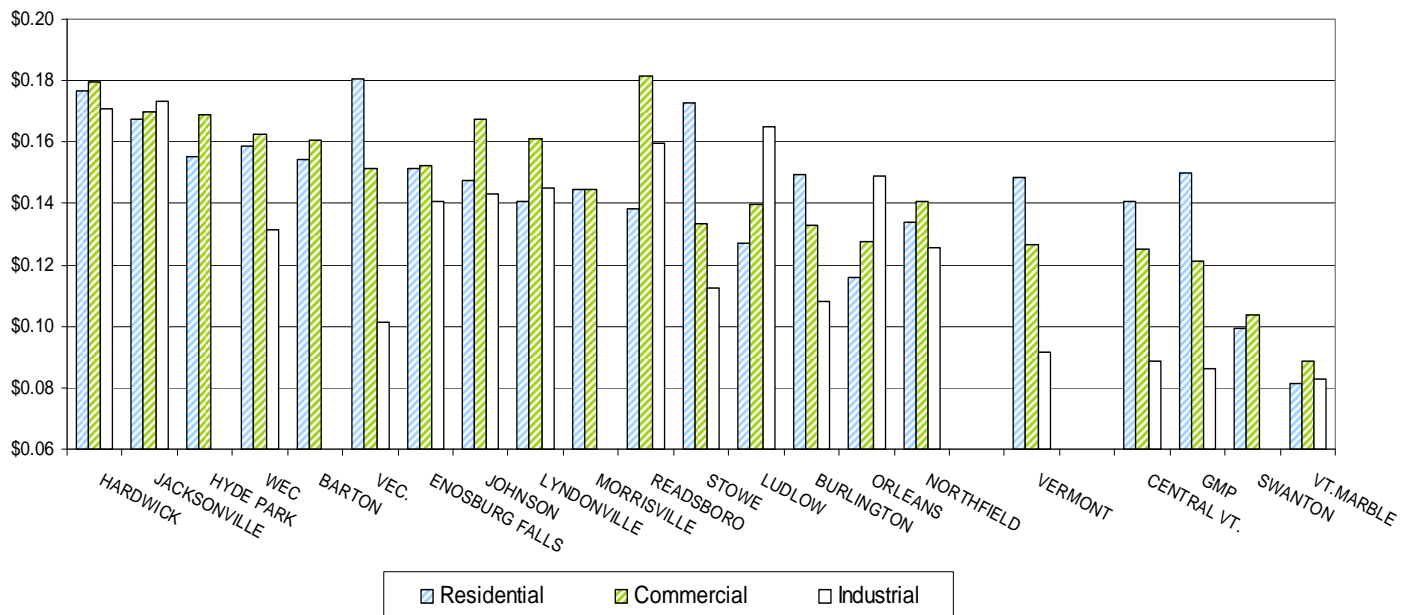
	Residential		Commercial		Industrial		All Sectors	
	2008	2007	2008	2007	2008	2007	2008	2007
New England	17.7	16.5	15.6	14.7	13.8	12.5	16.1	14.9
Connecticut	19.6	18.7	17.1	15.3	14.9	12.7	17.8	15.5
Maine	16.2	15.2	13.0	13.1	11.7	10.8	13.8	13.0
Massachusetts	17.7	16.3	15.8	15.1	14.9	13.6	16.3	15.0
New Hampshire	15.7	14.8	14.3	13.8	13.2	12.5	14.7	13.7
Rhode Island	17.5	14.0	15.4	12.8	14.2	12.3	16.0	13.0
Vermont	14.5	14.1	12.5	12.3	9.2	8.8	12.3	11.7

Note: Since Utilities may have different definitions and standards for rate classes care must be taken when comparing interstate rate differences.

Source: EIA

Figure 1.13 Average Retail Price of Electricity by End-use Sector, 2008**(Cents/kWh)**

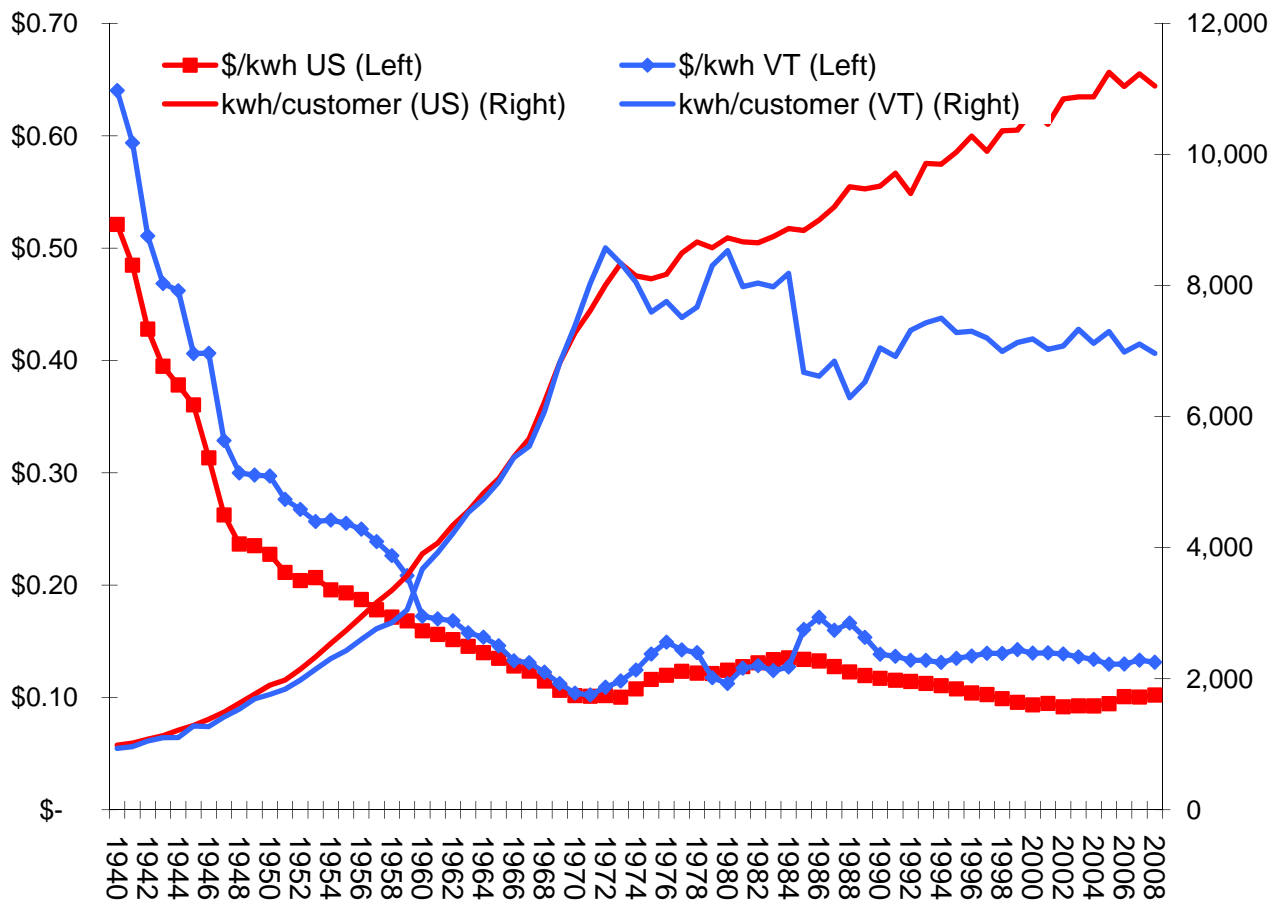
Source: EIA

Figure 1.14 Average Electric Utility Customer Rates (cents per kWh), 2009**Table 1.9 Average Electric Utility Customer Rates (cents per kWh), 2009**

	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>	<u>Total Rate</u>
HARDWICK	\$0.176	\$0.179	\$0.171	\$0.177
JACKSONVILLE	\$0.168	\$0.170	\$0.173	\$0.169
HYDE PARK	\$0.155	\$0.169		\$0.159
WEC	\$0.158	\$0.163	\$0.132	\$0.158
BARTON	\$0.154	\$0.161		\$0.156
VEC.	\$0.180	\$0.151	\$0.101	\$0.156
ENOSBURG FALLS	\$0.151	\$0.152	\$0.141	\$0.148
JOHNSON	\$0.147	\$0.167	\$0.143	\$0.148
LYNDONVILLE	\$0.141	\$0.161	\$0.145	\$0.146
MORRISVILLE	\$0.144	\$0.144		\$0.145
READSBORO	\$0.138	\$0.182	\$0.160	\$0.144
STOWE	\$0.173	\$0.134	\$0.113	\$0.143
LUDLOW	\$0.127	\$0.140	\$0.165	\$0.142
BURLINGTON	\$0.149	\$0.133	\$0.108	\$0.134
ORLEANS	\$0.116	\$0.127	\$0.149	\$0.132
NORTHFIELD	\$0.134	\$0.141	\$0.126	\$0.131
VERMONT	\$0.148	\$0.127	\$0.092	\$0.127
CENTRAL VT.	\$0.141	\$0.125	\$0.089	\$0.127
GMP	\$0.150	\$0.121	\$0.086	\$0.119
SWANTON	\$0.100	\$0.104		\$0.103
VT.MARBLE	\$0.081	\$0.089	\$0.083	\$0.083

Source: Vermont DPS

**Figure 1.15 Rate Revenue Per KWh and Residential Demand per Customer, VT, US
(\$/kwh in 2000\$)**



Source: EIA

7. Electric Utility Reliability, Complaints & Franchise Map

Table 1.10 System Average Interruption Index (SAIFI)*

	Baseline**	2007	2008	2009	Avg (3 yrs)	Rank (3 yr avg - Baseline)
Enosburg	6.9	2.6	4.1	1.7	2.8	1
Swanton	2.4	0.7	0.9	0.4	0.7	2
Ludlow	3.0	2.3	3.1	0.1	1.8	3
Orleans	1.0	0.0	0.1	0.0	0.0	4
BED	2.2	1.1	1.5	1.5	1.4	5
Hyde Park	2.6	3.1	1.2	1.5	1.9	6
Morrisville	3.0	2.3	1.0	4.3	2.5	7
Barton	1.8	1.9	1.3	1.3	1.5	8
GMP***	1.7-2.1	1.5	1.9	1.6	1.7	9
VT Marble	3.5	6.3	1.8	1.7	3.3	10
CVPS	2.5	2.0	2.9	2.0	2.3	11
Jacksonville	2.4	4.4	2.7	0.3	2.5	12
Stowe	0.9	0.0	1.5	2.2	1.2	13
VEC	2.5	2.9	4.1	2.4	3.1	14
WEC	3.8	3.6	6.2	4.0	4.6	15
Northfield	1.0	1.1	3.6	1.2	2.0	16
Readsboro	1.8	3.2	4.8	0.6	2.9	17
Johnson	1.0	4.3	1.2	1.4	2.3	18
Hardwick	2.5	5.3	1.3	5.6	4.1	19
Lyndonville	3.0	2.5	2.2	NA	NA	NA

*System Average Interruption Frequency Index ("SAIFI") = No. Customers Out/ No. Customers Served.

SAIFI is a measure of the average No. of times that the average customer experienced an outage.

**The baseline differs by Utility based on factors such as terrain, weather, accidents, or equipment failure.

***GMP baseline was adjusted in 2008

Table 1.11 Customer Average Interruption Index (CAIDI)*

	Baseline	2007	2008	2009	Avg (3 yrs)	Rank (3 yr avg - Baseline)
Northfield	2.4	0.3	1.0	0.4	0.6	1
Stowe	3.3	3.0	1.5	1.3	1.9	2
Swanton	2.5	1.1	1.7	1.0	1.3	3
Morrisville	2.5	1.7	1.6	1.5	1.6	4
Ludlow	0.9	0.0	0.6	0.4	0.3	5
WEC	2.0	1.8	1.7**	1.7	1.7	6
VT Marble	2.5	3.1	1.4	2.3	2.3	7
Hardwick	1.8	1.7	1.8	1.3	1.6	8
BED	1.3	0.7	1.7	1.1	1.2	9
CVPS	3.5	2.8	5.2**	2.6	3.5	10
GMP***	2.2	1.9	3.8	1.6	2.4	11
Johnson	2.7	2.9	5.1**	1.1	3.0	12
VEC	2.6	2.1	4.3**	2.5	3.0	13
Hyde Park	1.9	2.4	2.6	1.8	2.3	14
Enosburg	2.1	1.0	2.9	4.4	2.8	15
Barton	2.5	1.1	1.7	8.8	3.9	16
Orleans	1.5	1.6	6.9	1.6	3.4	17
Readsboro	3.0	2.1	11**	3.9	5.7	18
Jacksonville	3.0	2.9	22.5	1.8	9.1	19
Lyndonville	2.6	2.5	2.5	NA	NA	NA

*Customer Average Interruption Duration Index (CAIDI) = Customer Hours Out/Customers Out.

CAIDI is a measure of the average length of time, in hours, required to restore service.

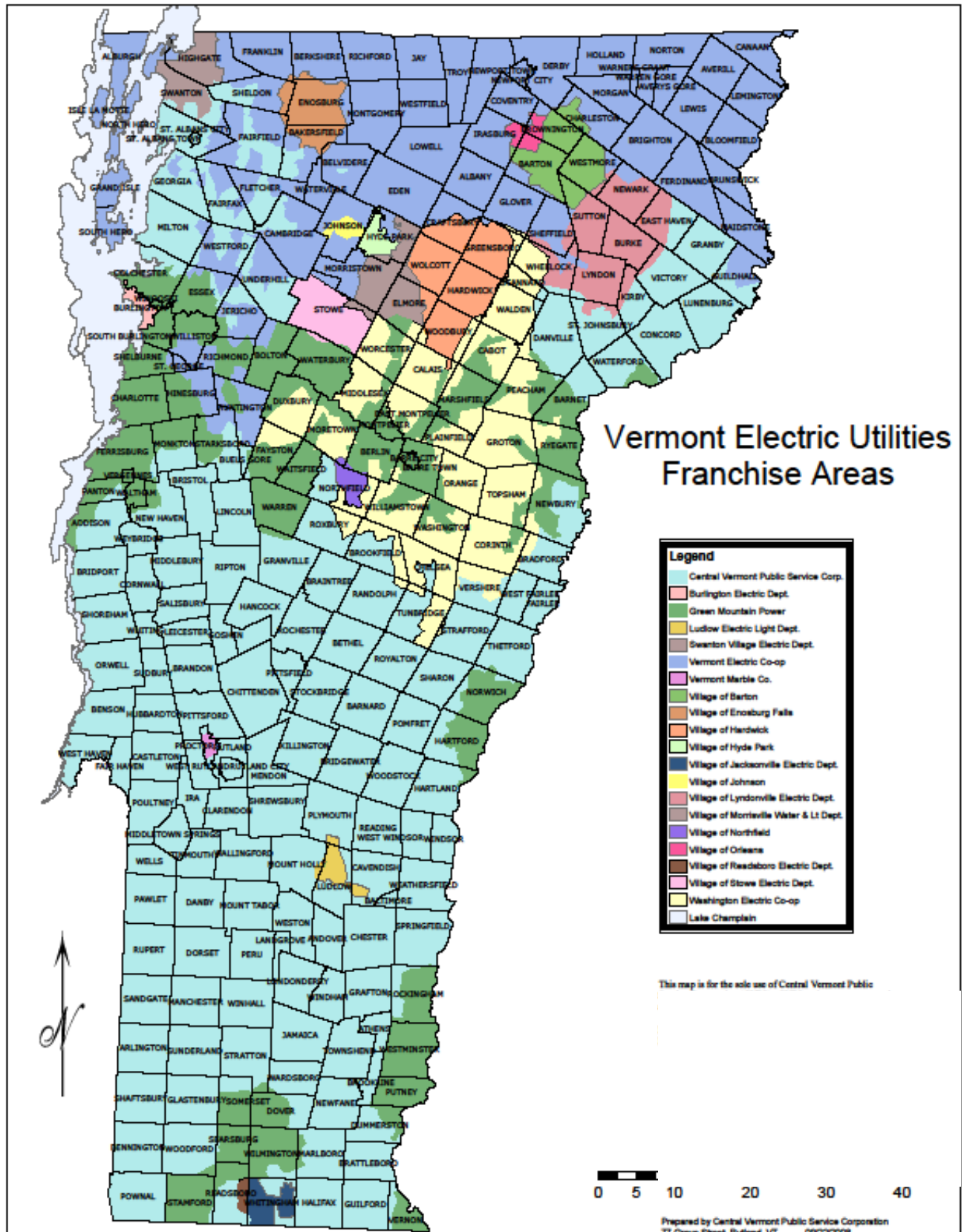
** indicates utility w/ unique storm problems, equipment, substation issues

***GMP baseline was adjusted in 2008

Table 1.12 Electric Utility Consumer Complaints (No.), 2000-09

	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
Barton	1		2	2	2				1	1
BED	3	6	4	4	4	6	7	4	2	3
Citizens	35	27	13	23	5					
CVPS	118	74	56	94	49	15	15	11	26	26
Enosburg	2	4		2	3	2			1	
Falls										
GMP	74	96	51	44	18	15	13	4	14	10
Hardwick	6	1	3	2	2		2		1	3
Hyde Park	2	3					1			2
Jacksonville				4					2	
Johnson	3									
Ludlow				1						
Lyndonville	3	5	1	3	1			1	4	2
Northfield			2				1	1		
Morrisville		3		1						1
Readsboro					1	1		1		
Rochester	2									
Stowe		1					1			
Swanton	3		1	3		1		1	1	
VEC	6	9	14	11	20	24	21	14	8	9
Vermont	1									
Marble										
WEC	6	9	2	6	1		2	1	2	2

Figure 1.16 Electric Utility Franchise Areas

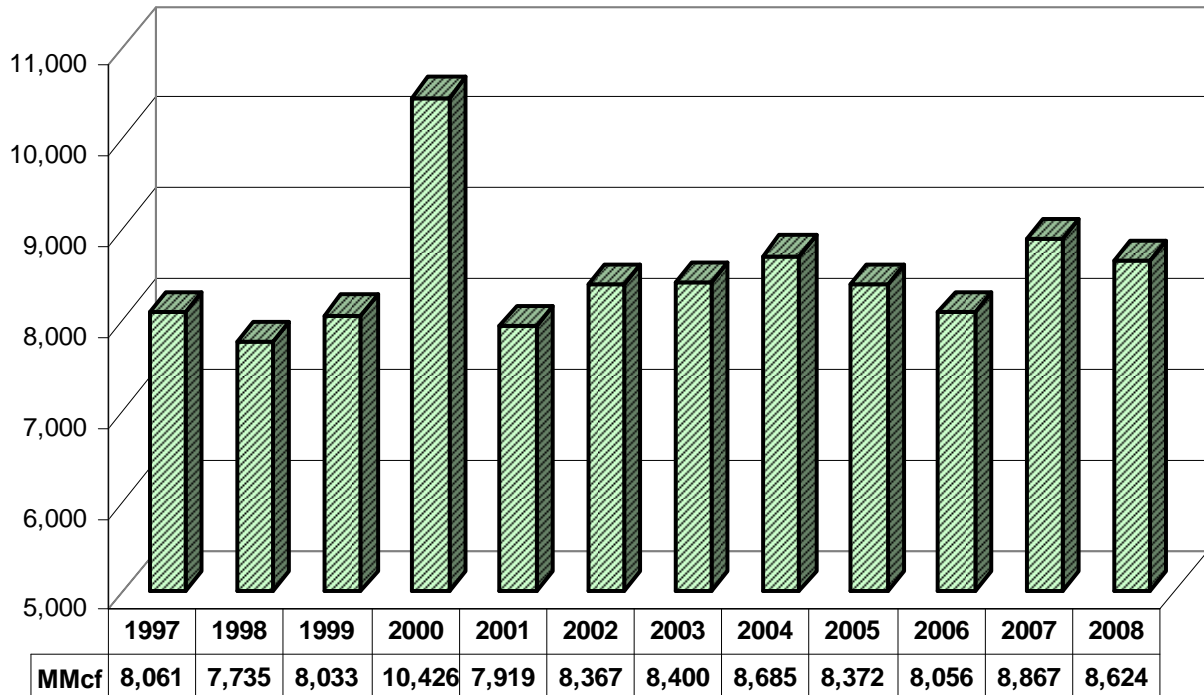


Section II

Natural Gas

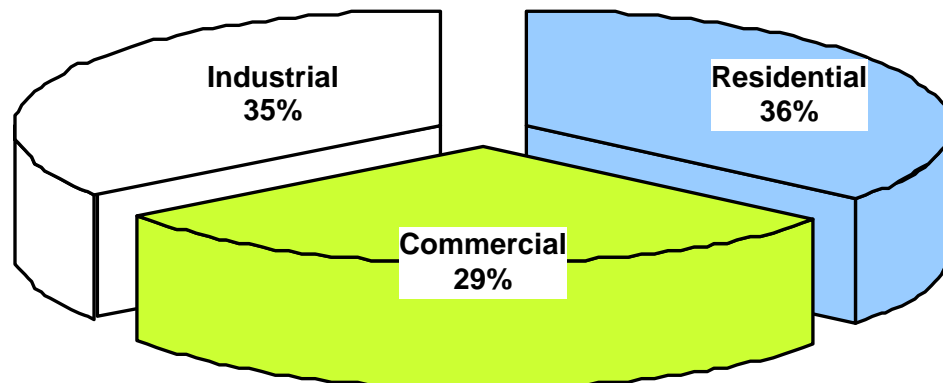
9. Natural Gas Supply, Demand, & Price

Figure 2.1 Natural Gas Delivered to Customers, Vermont, in MMCF



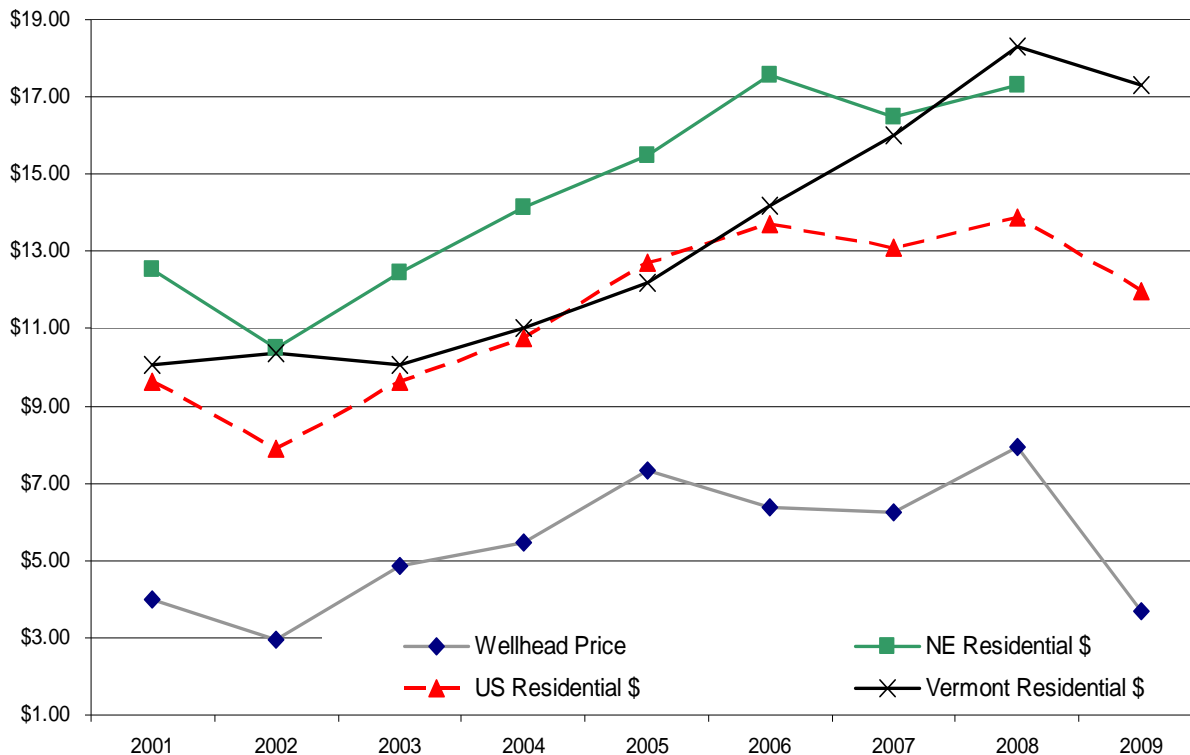
Source: EIA

Figure 2.2 VT Natural Gas Consumption by End Use, 2008



Source: EIA

Figure 2.3 Average Natural Gas Residential Retail Prices*
(In \$ per Thousand Cubic Feet)



* Residential prices of gas used in private dwellings, including apartments, for heating, cooking, water heating, and other household uses. Wellhead prices are the value at the mouth of the well. In general, the wellhead price is considered to be the sales price obtainable from a third party in an arm's length transaction.

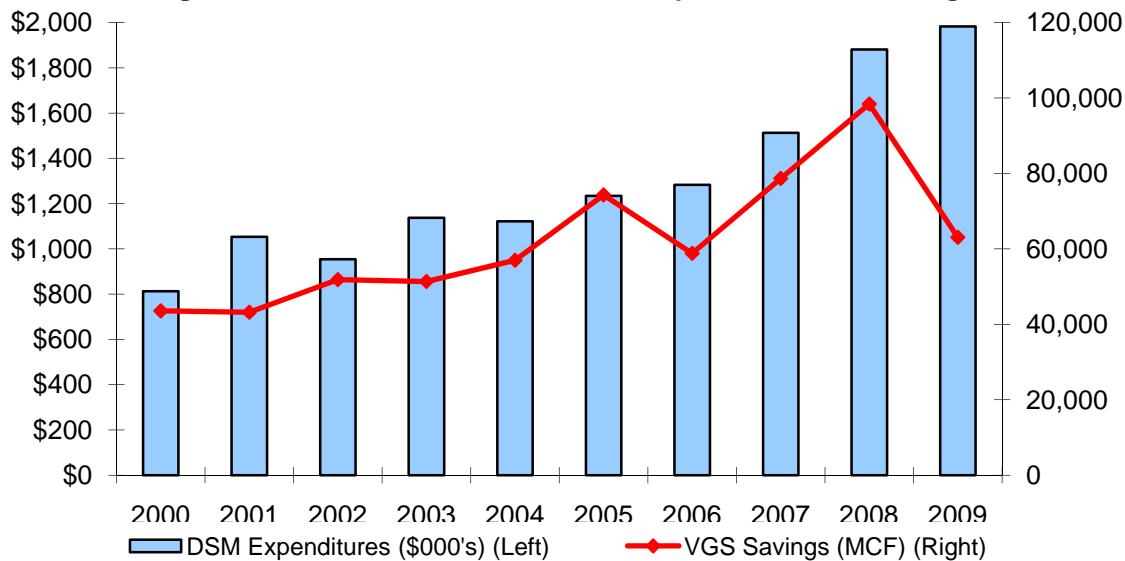
Source: EIA

Table 2.1 Vermont Natural Gas Consumption And Average Annual Price, 1997 – 2009

Consumption or Deliveries (MMcf)					Dollars per Thousand Cubic Feet		
Date	Total	= Residential	Commercial	Industrial	Residential	Commercial	Industrial
1997	8,061	2,631	3,051	2,334	\$6.41	\$5.18	\$3.07
1998	7,735	2,454	2,979	2,105	\$6.54	\$5.08	\$2.80
1999	8,033	2,565	2,309	2,901	\$7.18	\$5.69	\$3.06
2000	10,426	2,843	2,595	3,949	\$8.13	\$6.49	\$2.99
2001	7,919	2,719	2,473	2,597	\$10.07	\$7.95	\$5.02
2002	8,367	2,761	2,470	3,085	\$10.39	\$8.20	\$4.39
2003	8,400	3,118	2,757	2,479	\$10.05	\$8.00	\$4.97
2004	8,685	3,112	2,724	2,784	\$11.03	\$8.70	\$6.04
2005	8,372	3,088	2,610	2,628	\$12.20	\$9.69	\$7.65
2006	8,056	2,874	2,374	2,762	\$14.18	\$11.13	\$9.25
2007	8,867	3,207	2,631	2,987	\$15.99	\$12.79	\$9.08
2008	8,624	3,075	2,495	3,000	\$18.31	\$14.31	\$9.60
2009	8,637	3,183	2,483	2,890	\$17.29	\$12.96	\$7.93

Source: EIA

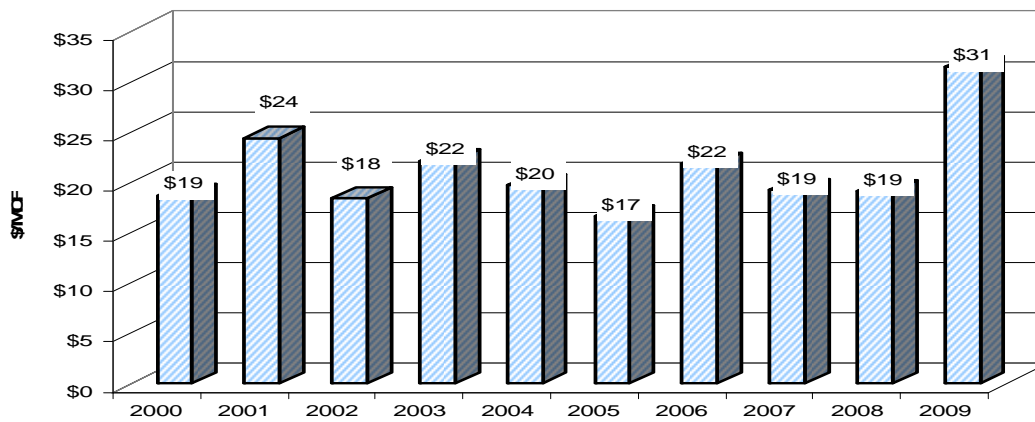
10. Natural Gas DSM

Figure 2.4 Vermont Natural Gas DSM - Expenditures and Savings**Table 2.2 Vermont Gas DSM - Expenditures and Savings**

	DSM Expenditures (\$000's)	VGS Savings(MCF)*	DSM Cost per MCF Saved
2000	\$813	43,555	\$18.67
2001	\$1,053	43,186	\$24.38
2002	\$954	51,834	\$18.40
2003	\$1,137	51,344	\$22.14
2004	\$1,122	56,968	\$19.70
2005	\$1,234	74,300	\$16.61
2006	\$1,283	58,795	\$21.82
2007	\$1,513	78,671	\$19.23
2008	\$1,881	98,400	\$19.12
2009	\$1,983	63,044	\$31.45

*DSM savings are for 1st year savings and do not reflect savings over the remaining lifetime of the DSM investment.

Source: VGS DSM Annual Report


Figure 2.4a Vermont Natural Gas: DSM Cost (\$) per MCF of Savings**Table 2.3 Natural Gas Consumer Complaints (No.), 2000-09**

	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
Vermont Gas	21	23	15	19	6	9	4	4	7	13

11. Natural Gas Service Territory

Figure 2.5 Vermont Gas Systems Distribution Line and Service Territory



 = Vermont Gas Systems Service territory

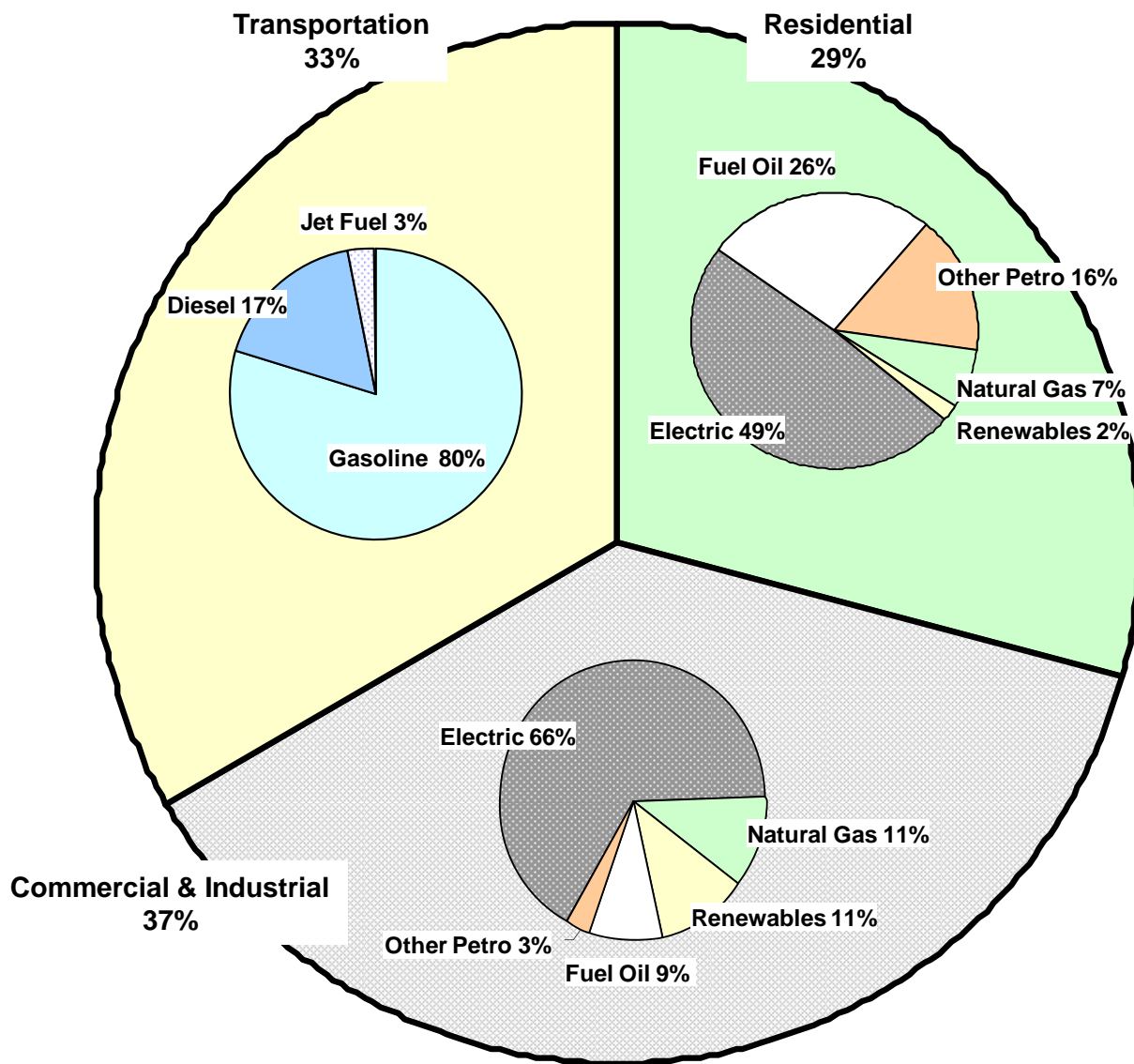
Section III

Energy Summary

12. Energy Supply

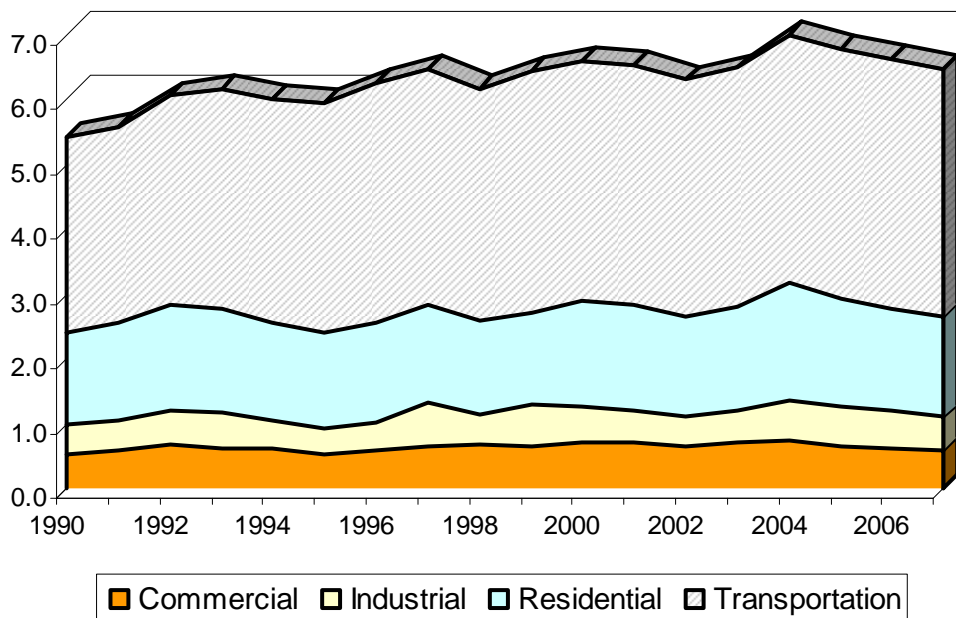
Figure 3.1 Vermont Energy End-Use By Source, 2008

(Percent of Total BTU's Consumed)



13. Energy Emissions

**Figure 3.2 Vermont CO2 Emissions from Fossil Fuel Combustion
(Million Metric Tons CO2 (MMTCO2))***

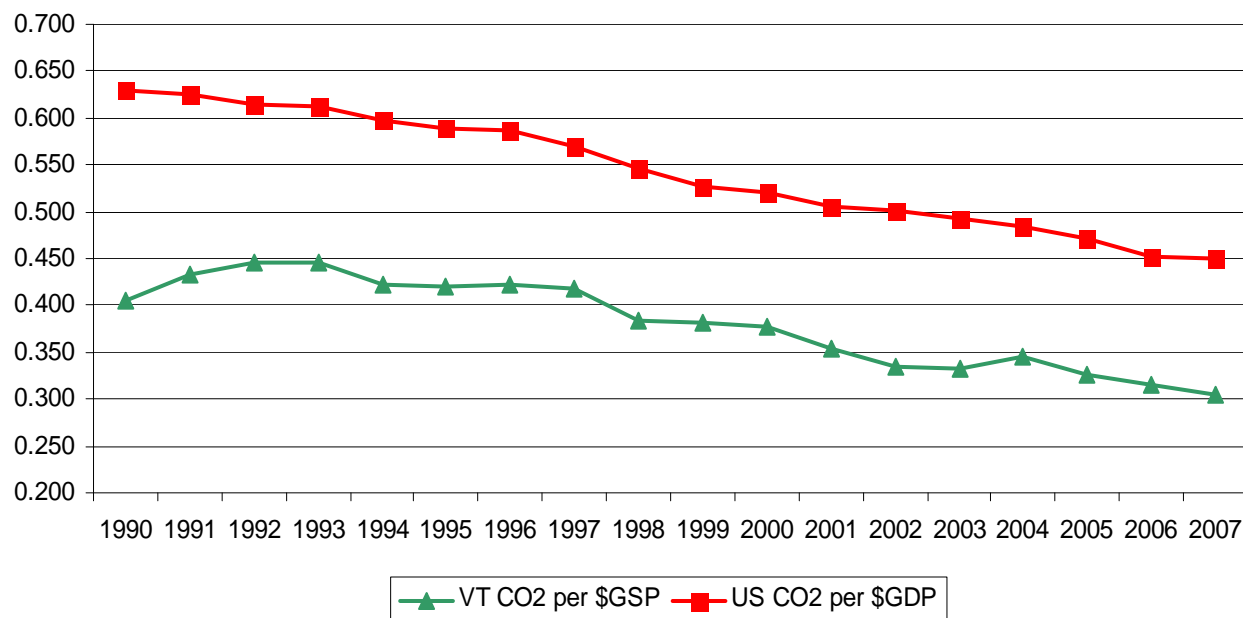


* Figure includes CO2 emissions from all end-uses, including in-state electric power generation (negligible amount). It does not include, or account for CO2 emissions from Vermont utility purchases of electric power generated out-of-state.

EPA developed state-level CO2 estimates using (1) fuel consumption data from the EIA State Energy Data 2007 Consumption tables and (2) emission factors from the Inventory of US Greenhouse Gas Emissions and Sinks 1990-2007.

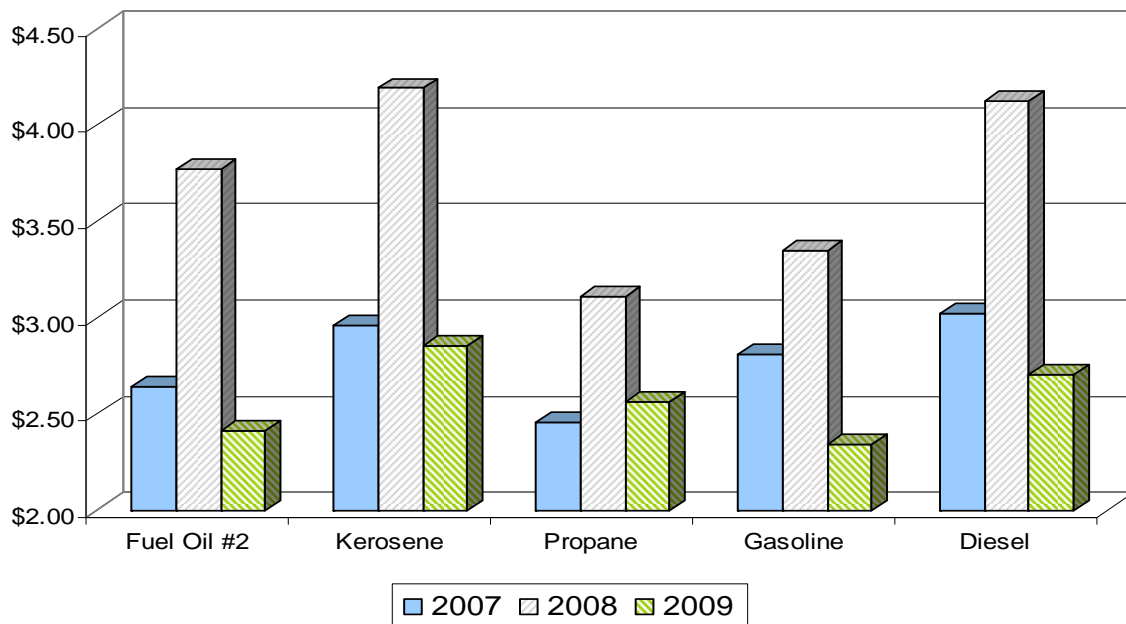
Source: US EPA

**Figure 3.3 CO2 Emissions from Fossil Fuel Combustion Per Dollar Gross Product
(in million metric tons CO2 per billion \$ real Gross Product)**



Source: See Figure 3.2 above, BEA

14. Energy Supply – Cost of Fuels

Figure 3.4 Average Vermont Fuel Prices, \$ Per Gallon, 2007-09

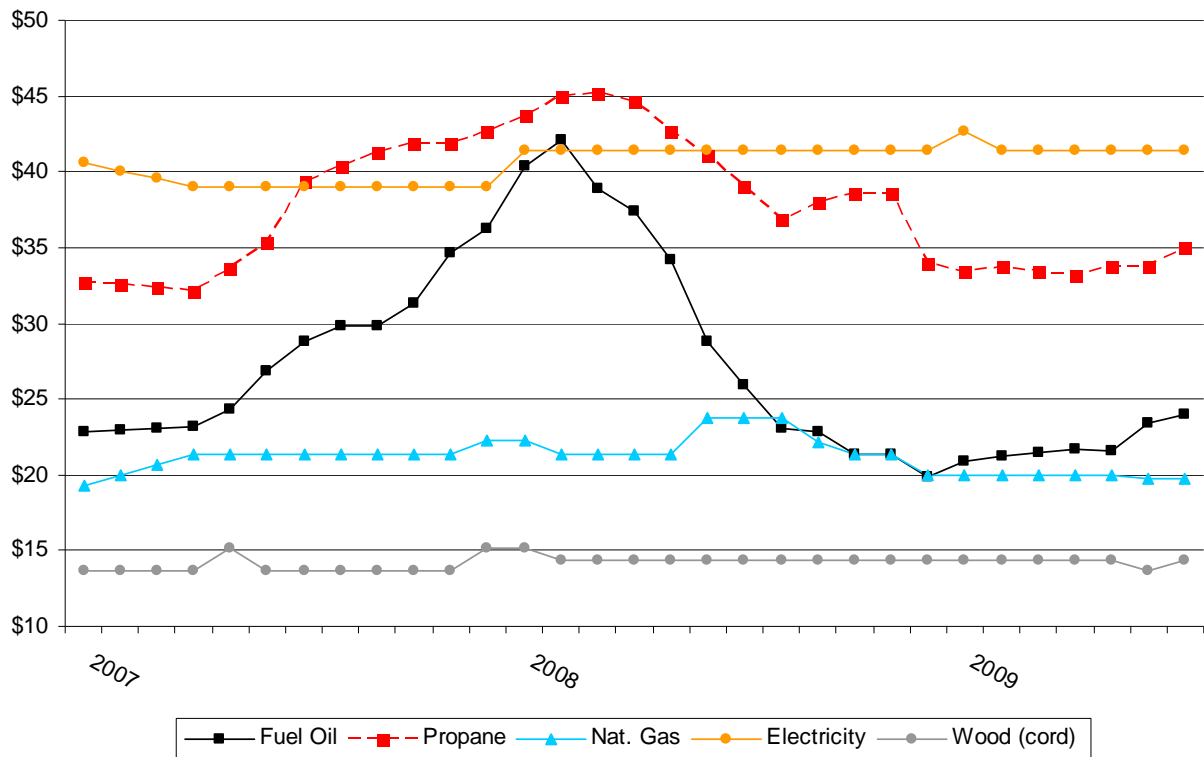
Source: DPS

Table 3.1 Average Vermont Fuel Prices, \$ Per Gallon

	<u>Fuel Oil #2</u>	<u>Kerosene</u>	<u>Propane</u>	<u>Gasoline</u>	<u>Diesel</u>
2000	\$1.36	\$1.57	\$1.35	\$1.55	\$1.70
2001	\$1.31	\$1.56	\$1.50	\$1.47	\$1.63
2002	\$1.18	\$1.37	\$1.34	\$1.36	\$1.45
2003	\$1.38	\$1.57	\$1.54	\$1.59	\$1.71
2004	\$1.65	\$1.86	\$1.77	\$1.88	\$1.97
2005	\$2.23	\$2.51	\$2.06	\$2.31	\$2.58
2006	\$2.53	\$2.86	\$2.34	\$2.59	\$2.85
2007	\$2.64	\$2.96	\$2.45	\$2.81	\$3.02
2008	\$3.77	\$4.19	\$3.11	\$3.35	\$4.13
2009	\$2.41	\$2.85	\$2.56	\$2.34	\$2.70

Source: DPS

Figure 3.5 Comparing the Cost of Heating Fuels, in \$ per million BTU's, 2007-2009



Source: DPS

Table 3.2 Cost of Heating Fuels*, in \$ per million BTU's, 2007-2009

	<u>2007</u>	<u>2008</u>	<u>2009</u>
Electricity	\$27.05	\$38.35	\$26.24
Propane	\$33.39	\$42.45	\$35.16
Fuel Oil	\$33.39	\$42.45	\$35.16
Nat. Gas	\$39.95	\$40.38	\$41.46
Wood (cord)	\$13.77	\$14.27	\$14.33

* Cost of heating fuels does not include, or account for use of Vermont efficiency funds.

Section IV

Telecommunications

15. Telecom High Speed Infrastructure

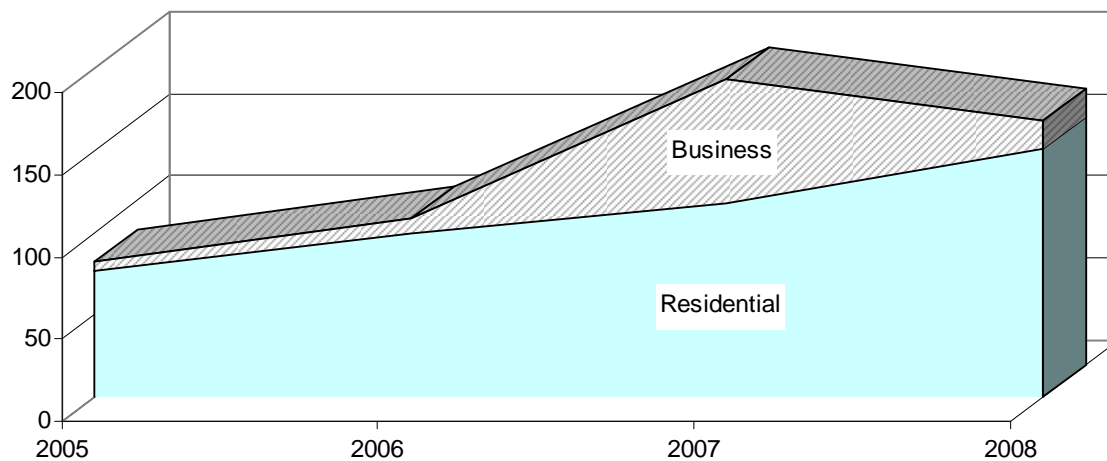
**Table 4.1 High-Speed Lines by State as of June, 2000-2007
(Over 200 kbps in at least one direction)**

State	2002	2005	2008
Vermont	29,990	82,279	257,065
Maine	61,069	176,396	428,904
New Hampshire	85,697	236,817	681,535
Massachusetts	566,796	1,213,640	3,392,831
US	15,787,647	42,517,810	132,813,984

NOTE: In this report high-speed lines are defined as connections to end-user locations that deliver services at speeds exceeding 200 kbps in at least one direction.

Source: FCC, High Speed Services for Internet Access Report, July 2009, FCC

Figure 4.1 Vermont High Speed Connections By Type of End-User (No. in 000's)



Source: See Table 4.2 below

Table 4.2 Vermont High Speed Connections Type of End-User (in 000's)

	Residential	Business	Total
Jun-05	76.9	5.4	82.3
Jun-06	99.8	8.8	108.6
Jun-07	118.1	75.0	193.2
Dec-08	151.0	17.0	168.0

Source: High-Speed Services for Internet Access: Status as of Dec 2008, FCC Feb 2010

Table 4.3 Percent Households & Businesses Subscribing to the Internet (Where Available), Vermont, 2008

Type of Internet Connection	Household		Business	
	2003	2009	2003	2009
Dial-up	71.0%	11.5%	46.6%	11.5%
Cable Modem	15.3%	31.0%	19.1%	29.0%
DSL	10.3%	43.2%	20.7%	58.0%
Wireless	0.4%	4.7%	1.3%	5.3%
Other			6.5%	11.3%

Source: Vermont Telecommunications Survey Report, April 2010, DPS

Note: Internet service availability, as defined in the DPS Telecommunications Survey, is based on the perceptions of Vermont residents. Broadband availability is defined as the percentage of Vermonters who responded that DSL, cable modem, fixed wireless service or fiber are available to purchase at home if they so choose. Meanwhile broadband adoption is described as the percentage of Vermonters who responded to the Survey that they subscribe to broadband where it is available.

**Table 4.4 High-Speed Connections by Technology by State,
as of December 31, 2008**
(Connections over 200 kbps in at least one direction, in thousands)

State	ADSL	Cable Modem	Other	Total
Vermont	61	71	36	168
Maine	114	288	52	454
New Hampshire	91	298	110	499
Connecticut	NA	615	NA	1,402
Massachusetts	NA	1,307	NA	2,600
US	30,190	41,468	30,385	102,043

NOTE: Major modifications to FCC data collection require Form 477 filers to report total subscribers with a device capable of a high-speed connection, irrespective of the service plan purchased. The number of such devices reported for December 2008 is not directly comparable to earlier reporting periods. This one-time decrease in 2008 in high-speed mobile wireless Internet access connections is, in turn, reflected in a one-time decrease in total high-speed Internet access connections for all technologies combined.

Source: High-Speed Services for Internet Access: Status as of Dec 2008, FCC Feb 2010

Table 4.5 Residential Fixed High Speed Connections by Households, Selected States, 2008

(Connections over 200 kbps in at least one direction and Households, in thousands)

	<u>No. Connections</u>	<u>No., Households</u>	<u>Subscriber Ratio</u>
Vermont	135	247	0.55
N. Hampshire	389	514	0.76
Maine	392	514	0.76
Rhode Island	274	418	0.66
Massachusetts	1,892	2,493	0.76
Connecticut	973	1,362	0.71
Wyoming	112	206	0.54
W. Virginia	343	737	0.47
Montana	192	385	0.50

NOTE: Numbers of residential connections are estimated and are not adjusted for the number of persons at an end-user location who have access to the Internet at that location.

Source: Table 21, High-Speed Services for Internet Access: Status as of December 31, 2008, FCC

Figure 4.2 Broadband Availability By Census Block, 768 kbps Down/200kbps Up
(as of June 2009)

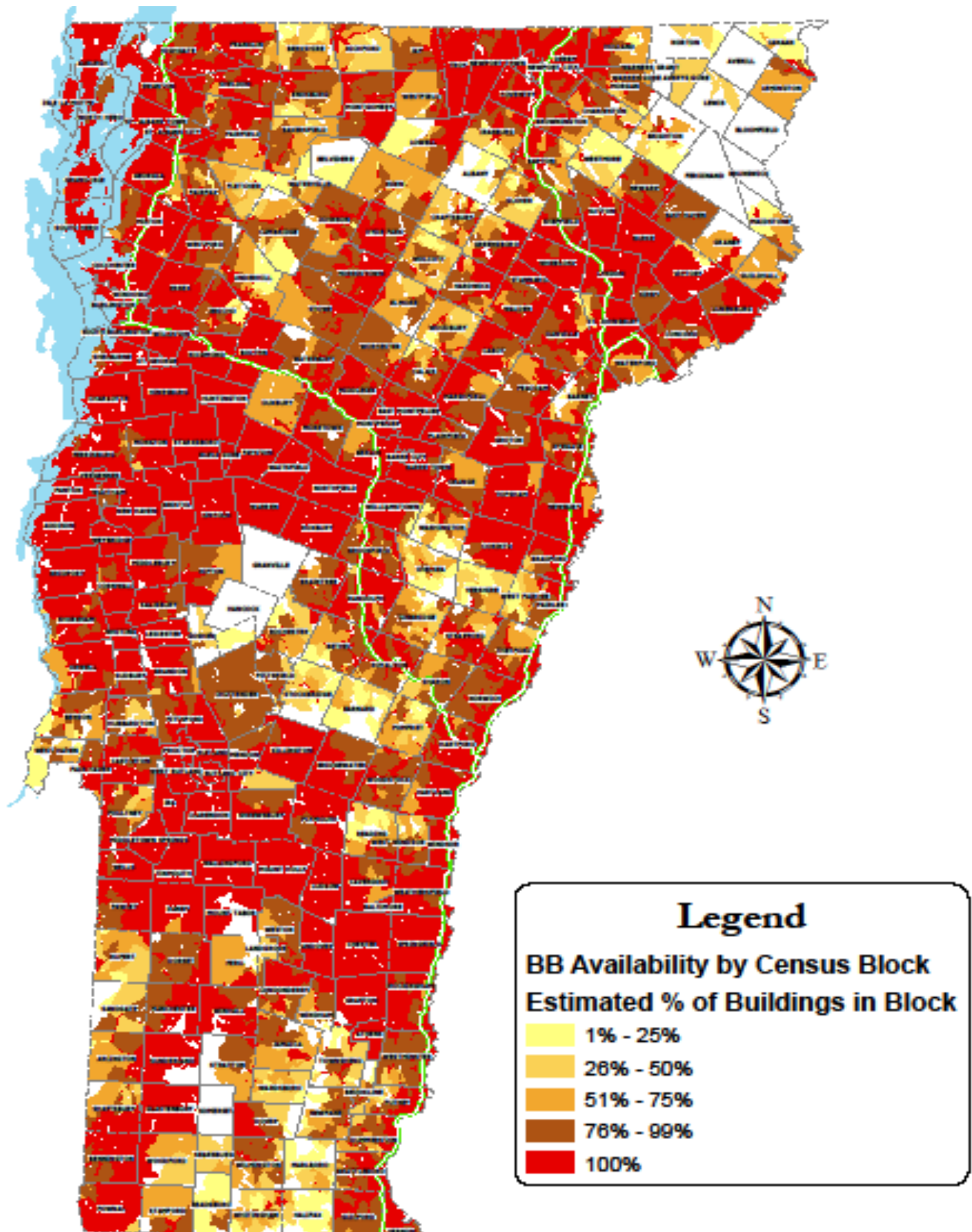
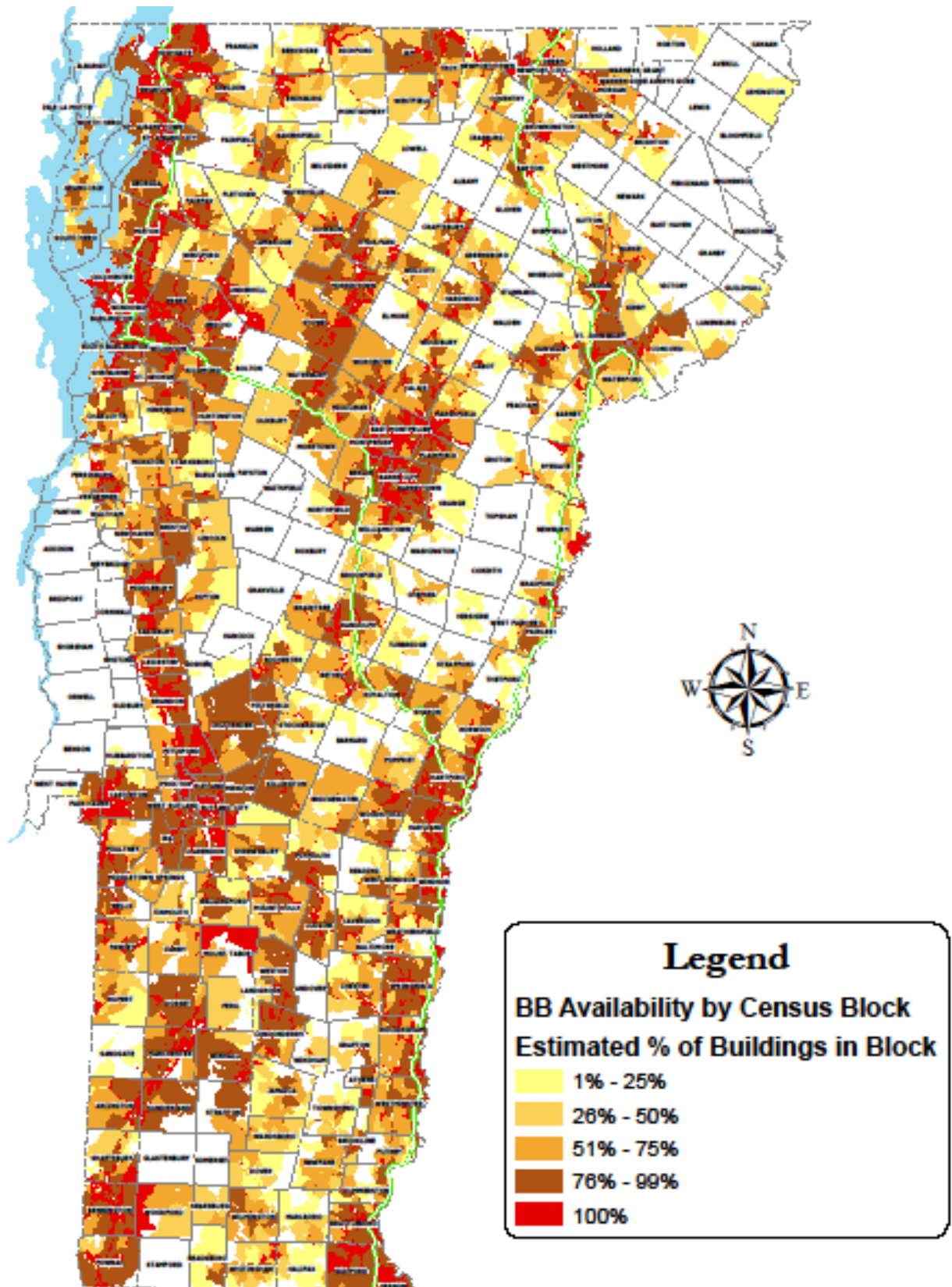
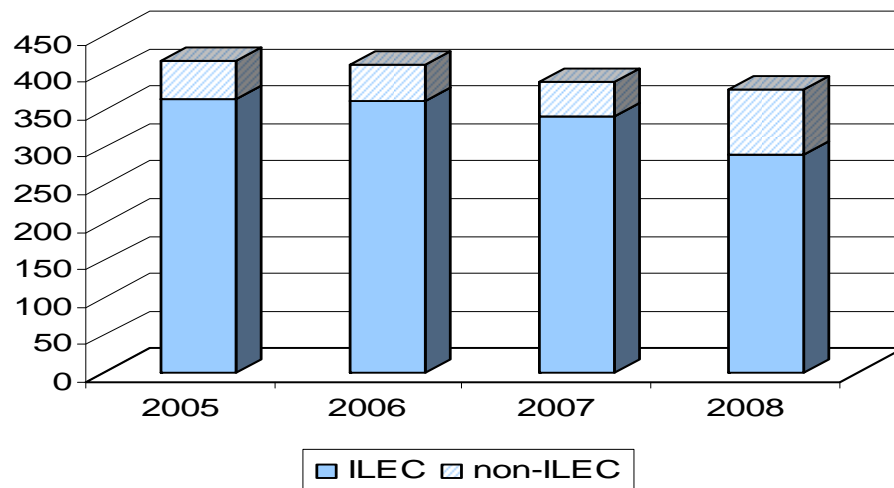


Figure 4.3 Broadband Availability By Census Block, 3 Mbps Down/2 Mbps Up
(as of June 2009)



16. Telecom- Local & Wireless

**Figure 4.4 Total End-User Switched Access Lines and VoIP Subscriptions, Vermont
(in Thousands)****Table 4.6 Total End-User Switched Access Lines and VoIP Subscriptions (in Thousands), Vermont**

	ILEC	non-ILEC	Total
2005	364	51	415
2006	362	48	410
2007	340	47	387
2008	289	88	377

Note: Only incumbent local exchange carriers (ILECs) and competitive local exchange carriers (CLECs) with at least 10,000 retail or wholesale switched access lines in service in a state were required to report through December 2004. All were required to report June 2005 and later data. Providers of interconnected VoIP service were first required to report subscribers as of December 2008.

Source: FCC, Local Telephone Competition: Status as of December 31, 2008

Table 4.7 Wireless Carriers and Subscribership By State
Subscribers (in 000's)

	<u>Carriers (No.)</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>
Vermont	7	314	358	402	435
N. Hampshire	8	849	943	1,022	1,080
Maine	8	746	845	941	1,012
Rhode Island	7	749	798	848	888
Connecticut	8	2,463	2,705	2,884	3,030
Massachusetts	7	4,728	5,129	5,470	5,749

Source: FCC, Local Telephone Competition: Status as of December 31, 2008

Table 4.8 Telephone Consumer Complaints, No., 2000-2009

	No. Access Lines (2007)	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Incumbent Local Exchange Carriers											
FairPoint Vermont (Northland Telephone)	5,977	15	12	3	5	16	28	15	13	8	4
Franklin Telephone	871					1					
TDS Ludlow Telephone	5,079	3			2				1		2
TDS Northfield Telephone	2,897	1	2	1	2				1		
TDS Perkinsville Telephone	906									2	
Shoreham Telephone	3,603	1			2					1	
Topsham Telephone	1,637	1	1			2	2				
Verizon	457,859	274	280	247	269	323	273	245	169	52	3
Vermont Telephone (VTel)	20,359	12	6	8	14	11	3	7		7	
Waitsfield & Champlain Valley Telecom	20,283	9	7	2	4	3	3	2		1	2
Fairpoint NNE										166	907
Competitive Local Exchange Carriers											
Burlington Telecom	1,881							1	1		
BCN Telecom							1	1	1	2	2
One Communications**		1		3	2		2		3	7	6
Excel/Vartec Communications					6	17	4	3	6	3	
Lightship		3	5	2	2	1	1	2		2	
MCI (dba Verizon Business Services)					15	48	73	50	10	10	5
Metropolitan Telecommunications	821					3	1	1			1
OneStar Long Distance***			4	8	8	10					
SoVerNet Communications					2	2	6	1	4	3	9
TelCove Operations	14,740		5	1	7					1	
USATel										1	
AT&T									7	6	2
Comcast									2	5	7
Level 3									1	5	
Vonage									1		
Toll Companies with 5 or more complaints*											
AT&T	N/A	273	280	108	155	153	38	9		7	5
LDCB	N/A					7					
MCI	N/A	145	111	129	95	54	26	10	3		
OneStar	N/A			6	7	19					
Sprint	N/A	13	19	16	24		9				
Excel/Vartec Communications	N/A	6		3		5			1		
Verizon	N/A							8	5		
Total		757	732	537	621	675	470	355	229	289	955

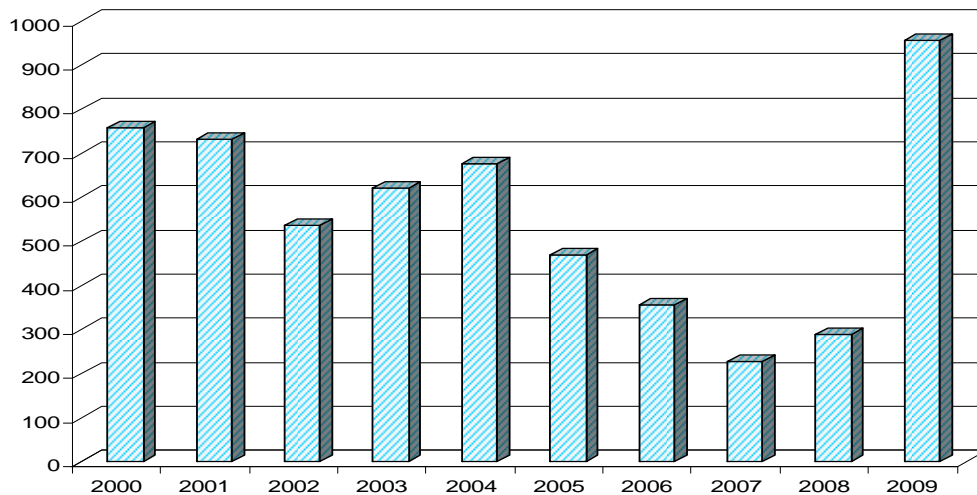
*Access line information not available for toll companies.

**One Communications was formed by the mergers and acquisitions of the Conversent, CTC and Choice One Communications companies.

***Currently in bankruptcy

Source: Vermont Department of Public Service, Consumer Affairs and Public Information Division.

Figure 4.5 Telephone Consumer Complaints (No.), Vermont, 2000-2009



17. Telecom Pricing

Table 4.9 Incumbent Telephone Company Prices for Local Service as of Dec. 31.

Company	Rate per minute of local use				Fee for Basic Dial Tone	
	Home Exchange		Extended Area Service		Residential	Business
	Peak	Off-Peak	Peak	Off-Peak		
Telecom Operating Co of Vt - Fairpoint (2009)	\$0.022	\$0.005	\$0.022	\$0.005	\$13.15	\$32.00
Vtel (2008)	\$0.022	\$0.005	\$0.022	\$0.005	\$12.70	\$23.25
FairPoint Vermont (2009)	\$0.100	\$0.005	\$0.025	\$0.005	\$13.20	\$23.65
Waitsfield-Fayston Telephone Co (2008)	\$0.010	\$0.005	\$0.022	\$0.010	\$13.40	\$26.40
Shoreham Telephone (2009)	\$0.014	\$0.005	\$0.020	\$0.005	\$6.15	\$10.25
Topsham Telephone (2009)	\$0.000	\$0.000	\$0.035	\$0.015	\$12.15	\$19.37
Franklin Telephone (2008)	\$0.000	\$0.000	\$0.030	\$0.010	\$10.00	\$18.00
TDS Northfield Telephone	TDS Co's have declining rate structure, <300 minutes = \$0.00; 301-600 minutes = \$0.025; 601-901 minutes = \$0.015; 901+ minutes = \$0.005. Exception: Northfield charges \$.015 for 301-900.				\$13.40	\$22.15
TDS Ludlow Telephone					\$12.90	\$21.65
TDS Perkinsville Telephone					\$12.90	\$21.65

Source: ILEC Annual Reports, DPS

Table 4.10 Selected Consumer Broadband Prices, as of Oct 2008

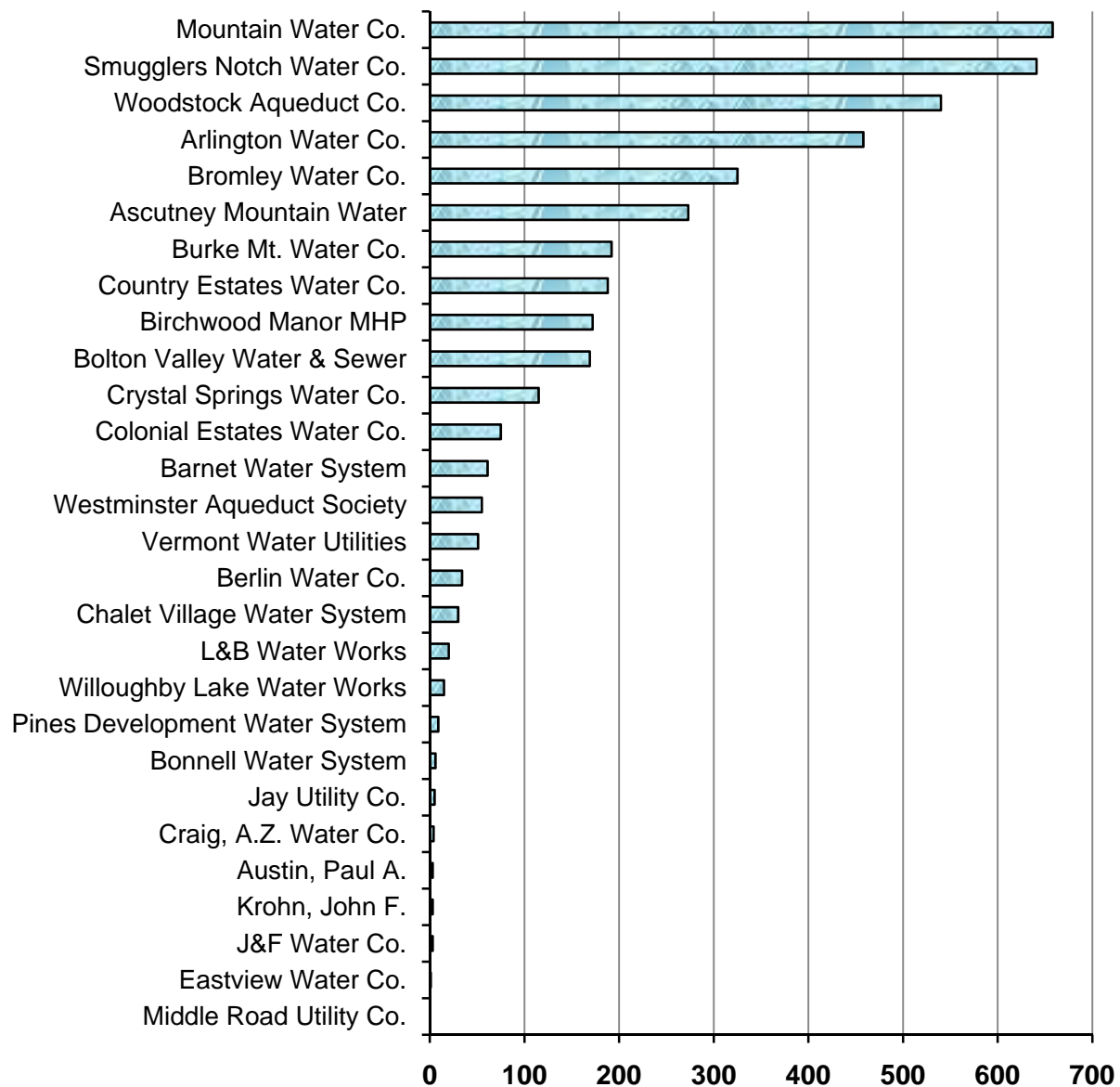
Provider	Service	Region	Monthly Rate	Speed (download/upload)	Note
Comcast Cable	Cable modem	Vermont, US	\$57.95	6 Mbps/384 Kbps	plus \$3/mo modem fee
Fairpoint	DSL	Vermont, US	\$43.99	3 Mbps/768 Kbps	requires 1 yr contract, \$49.00 w/o contract
VTel	DSL	So. Vermont	\$34.35	8 Mbps/1 Mbps	Requires Vtel dial tone.
SoVerNet (Atlantic Tele-Network)	DSL	Vermont	\$29.95	2 Mbps/256 Kbps	\$37.44 w/o phone service
Burlington Telecom	Fiber	Burlington	\$33.00	3Mbps/3 Mbps	
Northland Telephone (Fairpoint)	DSL	No. Vermont	\$34.95	384 Kbps/256 Kbps	
Waitsfield & Champlain Valley Telecom	DSL	West Central Vermont	\$39.95	6 Mbps/1 Mbps	Requires \$20.64/mo phone service + \$5/mo modem rental
Island Pond Wireless (Great Auk Wireless)	WISP	VT, NH	\$49.95	512 Kbps download	This is the lowest monthly fee; requires the purchase or lease of equipment for \$299.95 or \$29.95/mo, respectively.
Kingdom Connection	WISP	Vermont	\$39.95	256 kbps download	Additional \$9.95/mo equipment rental fee. Installation fee \$300
Earthlink	Cable Modem	northeast U.S.	\$45.95	6 Mbps download	only for Comcast Customers in select states (not including Vermont)
Earthlink	DSL	various U.S.	\$39.95	1.5 Mbps download	Requires 12 month contract
AT&T (f.k.a. SBC)	DSL	various U.S.	\$39.95	1.5 Mbps download	
Hughes Network Systems, LLC	Satellite	worldwide	\$69.99	1 Mbps/200 Kbps	HughesNet Pro plan requires a \$399.98 equip & installation fee (less a \$100 rebate)

Source: Prices were web-published rates in effect October 2008. Prices are for services with speed as described. Other service levels/speeds may be offered at other prices.

Section V

Water

18. Water Connections

Figure 5.1 Number Water Connections By Utility, 2010*

Source: DPS

*Includes only water utilities under the jurisdiction of the Vermont PSB and/or DPS. The table excludes municipal water systems, such as Burlington and Montpelier, fire districts, homeowners associations, and mobile home parks that incorporate water charges in the rent or other user fees.

Glossary

A

AMI Advanced Metering Infrastructure is a term denoting electricity meters that measure and record usage data at a minimum, in hourly intervals, and provide usage data to both consumers and energy companies at least once daily.

B

Biodiesel Any liquid biofuel suitable as a diesel fuel substitute or diesel fuel additive or extender. Biodiesel fuels are typically made from oils such as soybeans, rapeseed, or sunflowers, or from animal tallow. Biodiesel can also be made from hydrocarbons derived from agricultural products such as rice hulls.

Biofuels Liquid fuels and blending components produced from biomass (plant) feedstocks, used primarily for transportation.

Biomass Organic nonfossil material of biological origin constituting a renewable energy source.

Broadband Refers to evolving digital technologies that provide consumers a signal switched facility capable of providing integrated access to voice, high-speed data service, video-demand services, and interactive delivery services at a speed of over 200 kbps in at least one direction.

Btu conversion factor A factor for converting energy data between one unit of measurement and British thermal units (Btu). Btu conversion factors are generally used to convert energy data from physical units of measure (such as barrels, cubic feet, or short tons) into the energy-equivalent measure of Btu.

C

Capacity The maximum rated output of a generator, or other electric power production equipment under specific conditions designated by the manufacturer. Installed generator nameplate capacity is commonly expressed in megawatts (MW) and is usually indicated on a nameplate physically attached to the generator.

Capacity factor The ratio of the electrical energy produced by a generating unit for the period of time considered to the electrical energy that could have been produced at continuous full power operation during the same period.

D

Demand See Energy demand.

Demand-Side Management (DSM) The planning, implementation, and monitoring of utility activities designed to encourage consumers to modify patterns of electricity usage, including the timing and level of electricity demand. It refers to only energy and load-shape modifying activities that are undertaken in response to utility-administered programs. Demand-Side Management covers the complete range of load-shape objectives, including strategic conservation and load management, as well as strategic load growth.

Department of Public Service The Department of Public Service is an agency within the executive branch of Vermont state government. Its charge is to represent the public interest in matters regarding energy, telecommunications, water and wastewater.

Digital Subscriber Line (DSL) Digital Subscriber Line is a technology for bringing high-speed and high-bandwidth, which is directly proportional to the amount of data transmitted or received per unit time, information to homes and small businesses over ordinary copper telephone lines already installed in hundreds of millions of homes and businesses worldwide. With DSL, consumers and businesses take advantage of having a dedicated, always-on connection to the Internet.

DOE Department of Energy.

DSM costs The costs incurred by the utility to achieve the capacity and energy savings from the Demand-Side Management Program. Costs incurred by customers or third parties are to be excluded.

E

EIA The Energy Information Administration. An independent agency within the U.S. Department of Energy that develops surveys, collects energy data, and analyzes and models energy issues.. See more information about EIA at <http>

Electric Power The rate at which electric energy is transferred. Electric power is measured by capacity and is commonly expressed in megawatts (MW).

Electric Rate The price set for a specified amount and type of electricity by class of service in an electric rate schedule or sales contract.

Electric Utility Any entity that generates, transmits, or distributes electricity and recovers the cost of its generation, transmission or distribution assets and operations, either directly or indirectly, through cost-based rates set by a separate regulatory authority (e.g., Vermont Public Service Board), or is owned by a governmental unit or the consumers that the entity serves.

Emissions Anthropogenic releases of gases to the atmosphere. In the context of global climate change, they consist of radiatively important greenhouse gases (e.g., the release of carbon dioxide during fuel combustion).

Energy Demand The requirement for energy as an input to provide products and/or services.

Energy Supply Energy made available for future disposition. Supply can be considered and measured from the point of view of the energy provider or the receiver.

F

Fuel Any material substance that can be consumed to supply heat or power. Included are petroleum, coal, and natural gas (the fossil fuels), and other consumable materials, such as uranium, biomass, and hydrogen.

Fuel Oil A liquid petroleum product less volatile than gasoline, used as an energy source. Fuel oil includes distillate fuel oil (No. 1, No. 2, and No. 4), and residual fuel oil (No. 5 and No. 6).

G

Generation The process of producing electric energy by transforming other forms of energy; also, the amount of electric energy produced, expressed in kilowatt hours.

Gigawatthour
(GWh) One billion watthours.

Greenhouse gases Those gases, such as water vapor, carbon dioxide, nitrous oxide, methane, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride, that are transparent to solar (short-wave) radiation but opaque to long-wave (infrared) radiation, thus preventing long-wave radiant energy from leaving Earth's atmosphere. The net effect is a trapping of absorbed radiation and a tendency to warm the planet's surface.

H

Hydro-Quebec Hydro-Québec is a crown corporation that provides electricity to Quebec, Canada and the north-eastern parts of the United States. Hydro-Québec's total installed capacity in 2008 was 35,190 MW, approximately 97% of which is from hydroelectric sources. Hydro-Québec is one of the world's largest producers of hydroelectric power.

I

Independent System Operator - New England (ISO NE) ISO New England is the regional transmission organization, serving Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont. It coordinates, controls and monitors an electricity transmission grid that is larger with much higher voltages than the typical power company's distribution grid. It also operates the regional wholesale market for electrical power.

K

Kilowatthour (kWh) A measure of electricity defined as a unit of work or energy, measured as 1 kilowatt (1,000watts) of power expended for 1 hour. One kWh is equivalent to 3,412 Btu.

L

LNG The abbreviation for Liquefied Natural Gas.

Load Factor The ratio of the average load to peak load during a specified time interval.

M

Mcf One thousand cubic feet.

Megawatt (MW) One million watts of electricity.

MMbtu One million British thermal units.

MMcf One million cubic feet.

N

Natural Gas A gaseous mixture of hydrocarbon compounds, the primary one being methane.

New York Power Authority (NYPA): A New York State public benefit corporation and the largest state-owned power organization in the US. NYPA operates 17 generating facilities and more than 1,400 circuit-miles of transmission lines. The New York Power Authority sells electric power to government agencies, community-owned electric systems and rural electric cooperatives, companies, private utilities for resale (without profit) to their customers, and to neighboring states, under federal requirements

Net Metered Systems Permit a customer to own and operate a small generator on the customer side of the meter. Also known as Customer-side generation, net metered systems serve to offset the amount of generation for which the customer is billed. Also, any excess power at the end of the month can be sold back to the utility. These systems are generally small, intermittent generators such as those using solar and wind energy.

O

Oil A mixture of hydrocarbons usually existing in the liquid state in natural underground pools or reservoirs. Gas is often found in association with oil. Also see Petroleum.

Output The amount of power or energy produced by a generating unit, station, or system.

P

Petroleum A broadly defined class of liquid hydrocarbon mixtures. Included are crude oil, lease condensate, unfinished oils, refined products obtained from the processing of crude oil, and natural gas plant liquids. Note: Volumes of finished petroleum products include non hydrocarbon compounds, such as additives and detergents, after they have been blended into the products.

Photovoltaic (PV): The field of technology and research related to the application of solar cells for energy by converting sunlight directly into electricity.

Plant	A term commonly used either as a synonym for an industrial establishment or a generating facility.
Public Service Board	The Public Service Board is a quasi-judicial board that supervises the rates, quality of service, and overall financial management of Vermont's public utilities: cable television, electric, gas, telecommunications, water and large wastewater companies. It also reviews the environmental and economic impacts of energy purchases and facilities, the safety of hydroelectric dams, the financial aspects of nuclear plant decommissioning and radioactive waste storage, and the rates paid to independent power producers. The Board's mission is to ensure the provision of high quality public utility services in Vermont at minimum reasonable costs, measured over time periods consistent with the long-term public good of the state.

R

Rates	The authorized charges per unit or level of consumption for a specified time period for any of the classes of utility services provided to a customer.
Reliability (electric system)	A measure of the ability of the system to continue operation while some lines or generators are out of service. Reliability deals with the performance of the system under stress.

S

Sustainably Priced Energy for Economic Development (SPEED) Initiatives	A program designed is to achieve the goals of 30 V.S.A. § 8001 related to the promotion of renewable energy and long-term stably priced contracts for such energy that are anticipated to be below the market price.
--	--

T

Tariff	A published volume of rate schedules and general terms and conditions under which a product or service will be supplied.
Thermal	A term used to identify a type of electric generating station, capacity, capability, or output in which the source of energy for the prime mover is heat.

U

Utility distribution companies	An electric utility is a publicly regulated company that engages in the distribution of electricity for sale in a guaranteed service territory with a guaranteed rate of return. Electric distribution companies may be investor owned, publicly owned, or a cooperative.
--------------------------------	---

V

Vermont Gas System	Vermont's only natural gas company with 40,000 residential and commercial customers in Chittenden and Franklin counties.
Vermont Public Power Supply Authority (VPPSA)	A private authority of the State of Vermont empowered under 30 VSA, Chapter 84 with broad authority to contract to buy and sell wholesale power within Vermont and wholesale and retail power outside Vermont, as well as to issue tax-free debt on behalf of municipal and cooperative electric utilities within Vermont.
Vermont Yankee	A boiling water reactor type nuclear power plant currently owned by Entergy Nuclear. It is located in the town of Vernon, Vermont and generates 620 megawatts (MW) of electricity

W

Wood Energy	Wood and wood products used as fuel, including round wood (cord wood), limb wood, wood chips, pellets, bark, sawdust, forest residues, charcoal, pulp waste, and spent pulping liquor.
-------------	--

Data Source(s)

Data Sources

Burlington Electric Department	http://www.burlingtonelectric.com
Central Vermont Public Service Corp. (CVPS)	http://www.cvps.com/
Department of Energy (US)	http://www.energy.gov/
Efficiency Vermont	http://www.efficiencyvermont.com
Energy Information Administration (US DOE)	http://www.eia.doe.gov/
Federal Communications Commission (FCC)	http://www.fcc.gov/
Federal Energy Regulatory Commission	http://www.ferc.gov/
New England Independent System Operator (ISO-NE)	http://www.iso-ne.com/
Vermont Department of Public Service	http://publicservice.vermont.gov/
Vermont Gas Systems Inc.	http://www.vermontgas.com